CARRIAGES FOR ALL POSITIONS

CTP1/1D/2/2D

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

DEVICE No W000315329 - P91206740 - W000315347 W000315333 - W000315351





ISSUE : EN REVISION : I

DATE : 12 - 2021

Instructions for use REF : 8695 6885

Original instructions



Thank you for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.
Its design, component specifications and workmanship comply with applicable European directives.
Please refer to the enclosed CE declaration to identify the directives applicable to it.
Tricase folds to the enclosed of declaration to identify the directives applicable to it.
The manufacturer shall not be liable if the product is used in association with items not recommended by the manufacturer.
For your safety, below is a non-limitative list of recommendations or requirements, many of which appear in the labour code.
Lastly, please inform your supplier of any error you may find in this instruction manual.

CONTENTS

A - SAFETY INSTRUCTIONS	1
1 - Particular safety instructions	1
B - DESCRIPTION	2
1 - Type of use	2
2 - Features	
3 - Dimensions	
4 - Motorisation	5
5 - Accessories and protection	6
5.1 Carriage protection kit	6
5.2 CTP2 carriage chain connecting duct "P91206345"	
5.3 CTP2 beam chain cable support	7
5.4 Manual movement crank "Please enquire"	
5.5 Slow speed option "Please enquire"	
5.6 CTP brake	8
5.7 Encoder adapter "P95248613"	9
6 - Beam	10
7 - Beam accessories	12
7.1 Set of two feet for CTP1 beam H=1 M "Please enquire"	12
7.2 Set of two feet for CTP1 H=1,5 M "Please enquire"	
7.3 Set of two feet for CTP2 beam H=1,7 M "P91206304"	
7.4 Set of two feet for CTP2 beam "Please enquire"	
7.5 Feet for CTP2 beam "P91206314"	
7.6 Stabiliser foot for CTP1 vertical beam "Please enquire"	17
7.7 Stabiliser foot for CTP2 vertical beam "Please enquire"	18
C - ASSEMBLY AND INSTALLATION	20
1 - Floor preparation	20
2 - Anchoring to the ground	20
3 - Slinging	
4 - Assembling a carriage on a CTP beam	22
D - MAINTENANCE	24
1 - Care24	
2 - Maintenance schedule	24
3 - Spare parts	25
PERSONAL NOTES	30

INFORMATION



This manual and the product with which it is associated refer to the applicable standards in force.



Please read this document carefully before you install, use or maintain the machine. Keep this document in a safe place for future reference. This document must follow the machine described if there is a change in ownership of the machine and accompany it up to demolition.



Display and pressure gauge:

Measurement instruments or displays of voltage, intensity, speed, accuracy etc. are to be considered as indicators, whether they are analogue or digital.



For operating instructions, adjustments, troubleshooting and spare parts, please refer to the special instructions for safe operating and maintenance.

This technical documentation is intended for the following machines/products:

- · CTP1 carriage
- · Reinforced CTP1 carriage
- · CTP1 D carriage
- · CTP2 carriage
- · CTP2 D carriage

REVISIONS

REVISION : B DATE :

DESCRIPTIONPAGEEncoder adapterB9

REVISION : C DATE : 06/06

DESCRIPTION PAGE

Change logo -

REVISION : D DATE : 01/08

DESCRIPTION PAGE
Update C21-C23

REVISION : E DATE : 10/08

DESCRIPTION PAGE

Complete update + newoffer spare parts

REVISION: F DATE: 10/08

DESCRIPTIONPAGEAdd motor 3AB5-C24-C25

REVISION : G DATE : 07/18

DESCRIPTION PAGE
Change logos

REVISION : H DATE : 03/19

DESCRIPTION PAGE
Update

REVISION : I DATE : 12/21

DESCRIPTION PAGE
Update

MEANING OF SYMBOLS

	Obligation to read the manual/ instructions for use.	<u>^</u>	Indicates a hazard.
	Mandatory use of safety shoes.	4	Warning of an electricity risk or hazard.
	Mandatory use of hearing protection.	<u>₹</u>	Warning of a risk or hazard due to an obstacle on the floor.
	Mandatory use of a safety helmet.		Warning of a risk or hazard of falling with a level change.
	Mandatory use of safety gloves.		Warning of a risk or hazard due to suspended loads.
	Mandatory use of safety glasses.	<u> </u>	Warning of a risk or hazard due to a hot surface.
	Mandatory use of a safety visor.		Warning of a risk or hazard due to moving mechanical parts.
	Mandatory use of safety clothing.		Warning of a risk or hazard due to a closing movement of mechanical parts of a machine.
	Make sure you clean the working zone.	**	Warning of a risk or hazard due to laser radiation.
4	Requires a visual inspection.		Warning of a risk or hazard due to an obstacle located at a height.
	Indicates a lubrication operation.		Warning of a risk or hazard due to the presence of a pointed element.

A - SAFETY INSTRUCTIONS



For general safety instructions, please refer to the specific manual supplied with the equipment.



AIRBORNE NOISE:

Refer to the special instructions 8695 7051 supplied with the equipment.

1 - Particular safety instructions



No object is to be placed on the rolling tracks.



"No climbing on the structure of the machine other than on platforms or gangways designed for that purpose.

To access equipment at heights, the user must use accessing means in accordance with the regulations, such as a safe mobile gangway, an aerial lift etc.".



Clean the working area from time to time.



This machine may only be moved by its designer, namely Lincoln Electric.



Never modify the machine.

The boom **is not** designed for anchoring lifting equipment.



The use of Personal Protective Equipment (PPE) is mandatory.



IMPORTANT: The guard covers are suitable for beams **CTP1/1D/2/2D**. Use with any other type of beam will make it necessary to adapt the guards.



Before using the machine, make sure that all the guards are in place. All guard covers must be screwed in.



Machine maintenance must be carried out with all the energy supplies switched off. The disconnection and padlocking of all energy sources is mandatory.

1

1 - Type of use

Repeated tool displacement:

- welding torch,
- welding head,
- metallization gun,
- paint gun,
- glue dispenser,
- etc...

Automated handling.

Rapid adjustment in position with long travel distances.

Construction of machine tools:

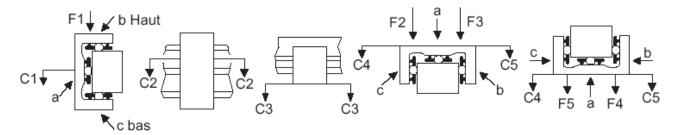
- grinding or polishing machines,
 drilling machines,
 welding or cutting machines,
 woodworking machines.

CTP1 carriage	W000315329	0 0
Reinforced CTP1 carriage	P91206740	
CTP1 D carriage	W000315347	
CTP2 carriage	W000315333	
CTP2 D carriage	W000315351	

CTP1/1D/2/2D

CTP carriage:

- · can be used in all positions,
- operates in difficult conditions with no special precautions,
- needs very small displacement force,
- guided precisely on rails by ball rollers,
 offers eccentric gap adjustment,
- has sealed rollers with lifelong lubrication,
- requires no maintenance,
- very easy to repair,
- drilled on three sides so that other elements can be fixed,
- · made of light moulded alloy.

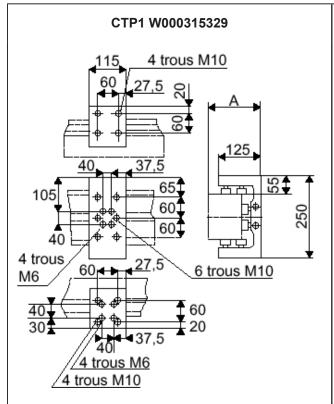


Dynamic loads that may be applied on the carriage rollers (F in daN and C in m.daN)											
F1 F2 F3 F4 F5 C1 C2 C3 C4 C5 WEIGHT											WEIGHT
CTP1 carriage	60	30	60	60	30	6	3	3	6	6	4 Kg
Reinforced CTP1 carriage	100	50	100	100	50	10	5	5	10	10	4 Kg
CTP1 D carriage	180	180	90	180	90	28	16	16	28	14	9 Kg
CTP2 carriage	180	180	90	180	90	50	22	22	50	25	13 Kg
CTP2 D carriage	450	180	180	180	180	50	95	50	50	50	29 Kg

		Max. load per roller			
		Dynamic	Static		
CTP1 carriage	Ø30 Roller	30 daN	45 daN		
Reinforced CTP1 carriage	Ø30 Roller	50 daN	80 daN		
CTP1 D carriage CTP2 carriage	Ø52 Roller	90 daN	135 daN		
CTP2 D carriage	Ø52 Roller Ø85 Roller	90 daN 235 daN	135 daN 350 daN		



NOTE: The loads stated above are provided for guidance only. Make sure that the force on the rollers does not exceed the values in the table opposite (load on untreated rails). Please enquire for load on treated rails.

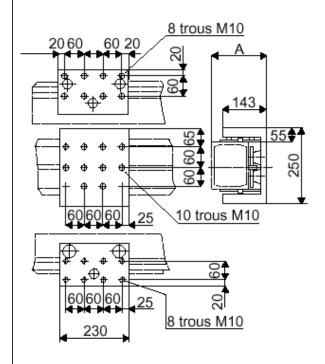


A: Beam with section A (see page B11): 155 mm Beam with section B (see page B11): 175 mm

CTP2 W000315333 trous M10 60 20 35 160 160 52,5‡ 68,5 Ф 4 Φ⊕ 60 60 60 27,5 trous M10

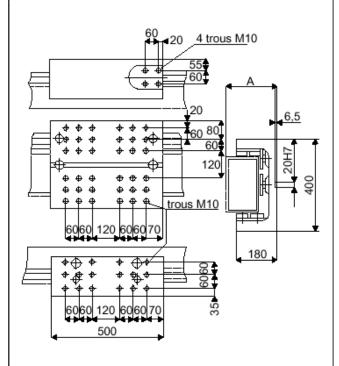
A: Beam with section C (see page B11): 210 mm Beam with section D (see page B11): 230 mm

CTP1 D W000315347



A: Beam with section A (see page B11): 155 mm Beam with section B (see page B11): 175 mm

CTP2 D W000315351



A: Beam with section C (see page B11): 210 mm Beam with section D (see page B11): 230 mm

CTP1/1D/2/2D

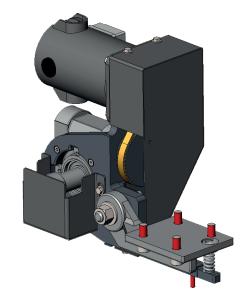
STANDARD MOTORISATION							
Right - V=3 m/min	W000315328						
Right - with tacho - V=3 m/min	P91097001						
Left - with tacho - V=3 m/min	P91097002						
Right - with tacho - V=10 m/min	W000315361						
Left - with tacho - V=10 m/min	P91208035						

Technical specifications:

- Rugged motorisation for operating in all positions.
- Irreversible kinematics chain.
- Pushing force (see table below).
- Speed adjustment via electronic drive (see table below).

Standard

- 42 VDC motor power supply voltage.
- Power consumption: 300 watts.
- Weight 9.1 Kg



Force on the	ne carriage	Speed	range
While pushing	While pulling	Standard with variable drive MOTOVAR MV20	With optional tacho- generator and variable drive MOTOVAR MV20
60 daN	48 daN	0.3 to 3 m/min	0.03 to 3 m/min
20 daN	16 daN	1 to 10 m/min	0.1 to 10 m/min

♠

Vertical motorisation:

- 1. Do not exceed the pushing effort stated in the table.
- 2. Make sure that the safety screw that keeps the pinion captive in the rack is in place.
- 3. Provide for fall protection balancing, counterweight or fall guard.
- 4. 10 m/min motorisations are reversible.

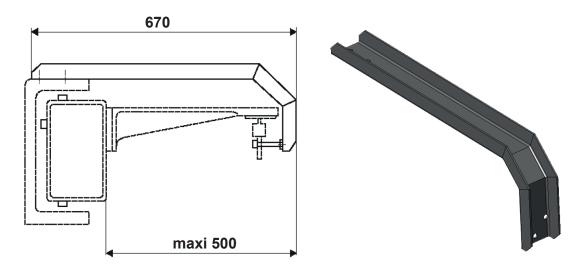
5.1 Carriage protection kit

This kit protects the fingers from being pinched or crushed between the rollers and guide rails. It is indispensable when the carriage is moved by a pneumatic or electrical system.

CTP1 carriage	W000315445	
CTP1 D carriage	W000315446	
CTP2 carriage	W000315447	
CTP2 D carriage	W000315448	

5.2 CTP2 carriage chain connecting duct "P91206345"

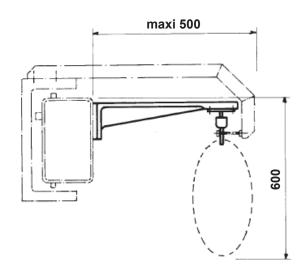
It is fixed to the carriage and drives the cable chain via the carriage. Weight: 3.9 Kg



5.3 CTP2 beam chain cable support

Mobile cable support to power CTP carriages during displacement.

Weight of supported cables or pipes	Weight	Description	Part number
60 Kg	7 Kg	Cable drag chain, 3.5 m long	P91206306
60 Kg	8 Kg	Cable drag chain, 4.5 m long	P91206307
	9 Kg	Cable drag chain, 5.5 m long	Please enquire
90 Kg	11 Kg	Cable drag chain, 6.5 m long	Please enquire
	13 Kg	Cable drag chain, 8 m long	Please enquire



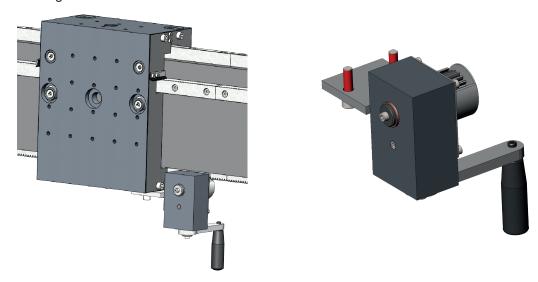


For satisfactory clearance, the length of the suspended cables must be 1.5 to 2 times the length of the cable support.

5.4 Manual movement crank "Please enquire"

It is used to move CTP type carriages manually.

- Self blocking system = the carriage cannot move if the crank is not turned.
- Weight = 3.5 Kg



5.5 Slow speed option "Please enquire"

It is used to reduce the speed of **CTP** motorisations.

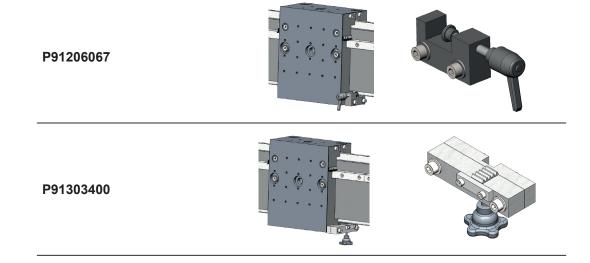
- Speed with this option = two thirds of the speed of the basic motorisation.
- Does not modify the dimensions of **CTP** motorisations.
- Replaces the rack drive pinion of CTP motorisations.
- Weight = 0.3 Kg

5.6 CTP brake

It is used to immobilise the CTP carriage on the travel beam.

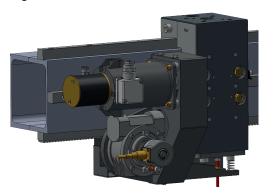
Carriage retention force: F= 80 daN

Weight: 0.3 Kg



5.7 Encoder adapter "P95248613"

5000 points Encoder precision: 1 encoder turn => 113 mm. Weight: 0.3 Kg





It acts as the travel path for CTP carriages.

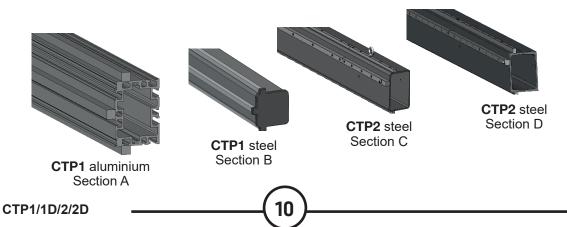
- High rigidity.
- Semi-hard steel rails: R= 60 daN/mm2.
- Treated rails available on request.
- Beams with a module 2 rack.
- Beams with sections B, C and D supplied with unfixed cam path rail and fixing template.
- Delivered with slinging eyes.

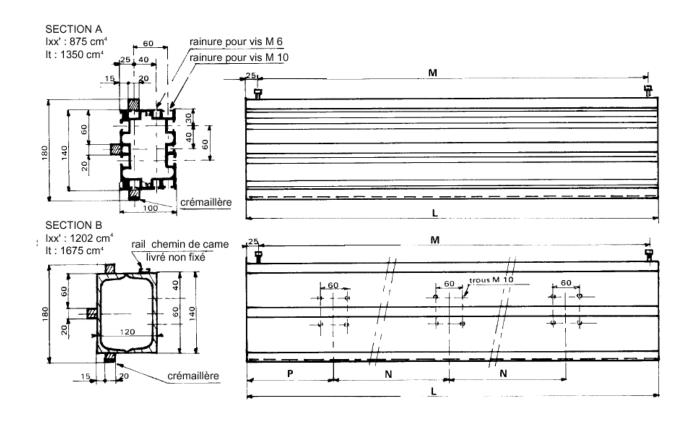
Section	Dimension in mm			m	Weight in kg	Joining facility	Description	Part number
	L	М	N	Р	3	idomity		
Α	1000				19		CTP1 light alloy beam, 1 m	P91206530
Α	1500				28.5	Joinable	CTP1 light alloy beam, 1.5 m	P91206535
Α	2000				38	beams	CTP1 light alloy beam, 2 m	P91206540
Α	3000				57		CTP1 light alloy beam, 3 m	P91206545
В	2000	1950	1000	498.5	82		CTP1 steel beam, 2 m	Please enquire
В	2997	2947	1000	498.5	126		CTP1 steel beam, 3 m	Please enquire
В	3997	3947	1000	498.5	168		CTP1 steel beam, 4 m	Please enquire
С	1745	1363	1000	347	103		CTP2 steel beam, 1.75 m	P91206625
С	2744	2635	2000	300	162	On request,	CTP2 steel beam, 2.75 m	P91206627
С	3494	3388	2000	300	205	the beams are available	CTP2 steel beam, 3.5 m	P91206296
С	4493	4387	3000	300	264	in joinable versions	CTP2 steel beam, 4.5 m	P91206297
С	5492	5386	4000	300	323		CTP2 steel beam, 5.5 m	P91206299
D	6491	6385	5000	300	585		CTP2 steel beam, 6.5 m	P91206352
D	7992	7886	5000	830	720		CTP2 steel beam, 8 m	P91206350
D	9488	9382	6000	830	840		CTP2 steel beam, 9.5 m	P95300516

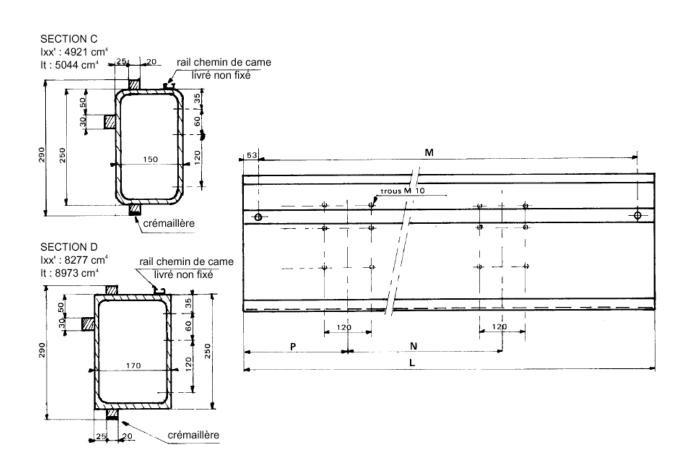
Other lengths available on request



The useful lengths of beams must not be mixed up with the useful travel of carriages on the beams, which depend on the type of carriage and the motorisation used.







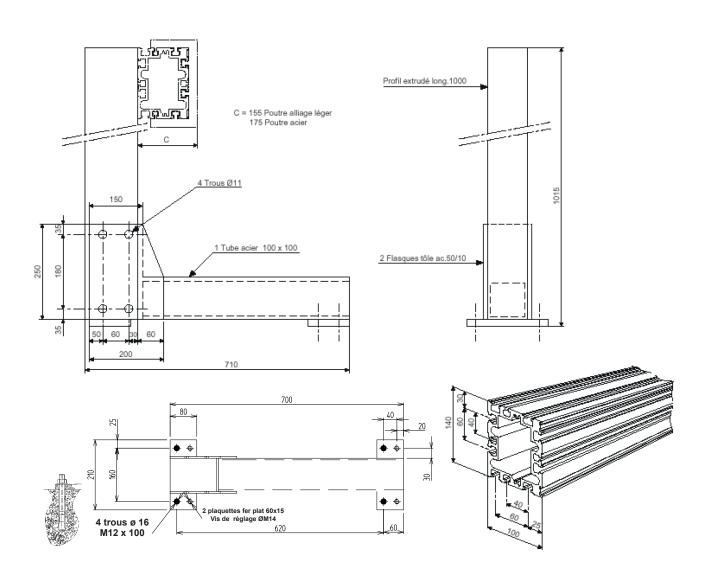
7.1 Set of two feet for CTP1 beam H=1 M "Please enquire"

Fixing and support for CTP travel path beam.

Specifications:

- Mechanically welded base.Extruded section upright for beam height adjustment.
- To keep the feet stable and eliminate vibrations, the feet must be anchored to the floor.
- Weight 50 Kg per set





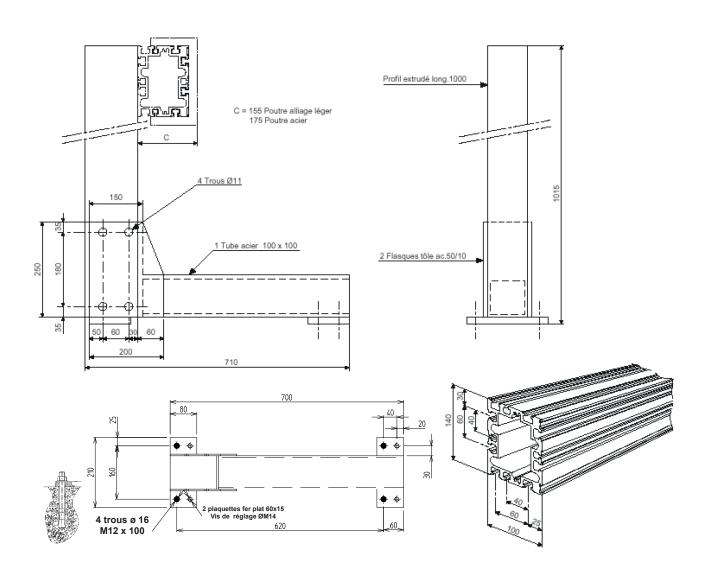
CTP1/1D/2/2D

7.2 Set of two feet for CTP1 H=1,5 M "Please enquire"

Fixing and support for the **CTP** travel path beam. Possibility of fixing a second beam, e.g. to make a twin-level lathe.

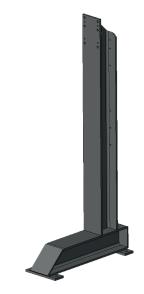
- Mechanically welded base.
- Extruded section upright for beam height adjustment.
- To keep the feet stable and eliminate vibrations, the feet must be anchored to the floor.
- Weight: 60 Kg per set

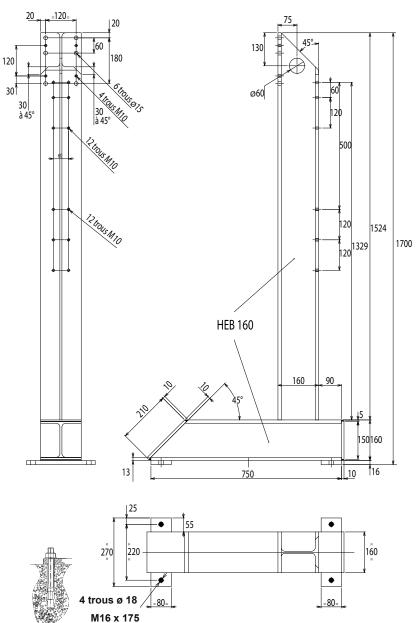




Fixing and support for CTP2 travel path beam.

- Mechanically welded base.
- HEB 160 upright.
- Anchoring screw and levelling with shims.
 To keep the feet stable and eliminate vibrations, the feet must be anchored to the
- Weight: 225 Kg per set

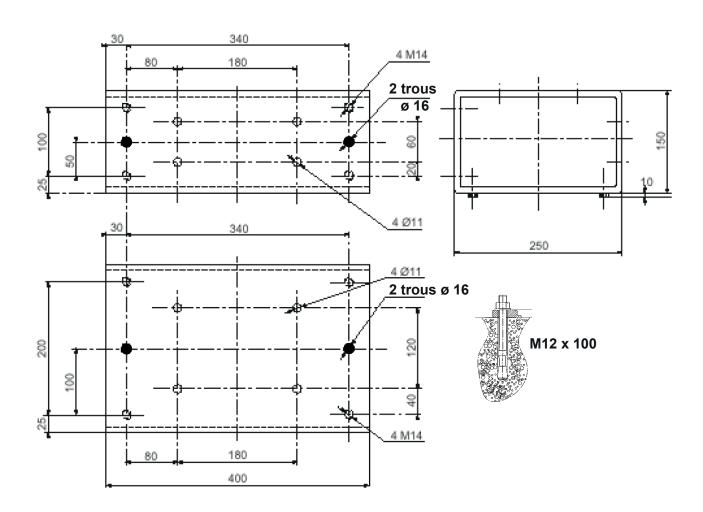




Fastening and support for rolling track beam to make horizontal lathes with the beam on the floor.

- Rectangular steel tube.
- The beam can thus be assembled on the two sides of the feet (floor height 160 or 260 mm)
- · Anchoring screw and levelling screw.
- For satisfactory assembly stability, the feet should be anchored to the floor. Fastening and levelling screw inside the foot.
- End flanges on the feet.
- Supplied with levelling screws and sealing pins.
- Weight: 40 Kg per set.





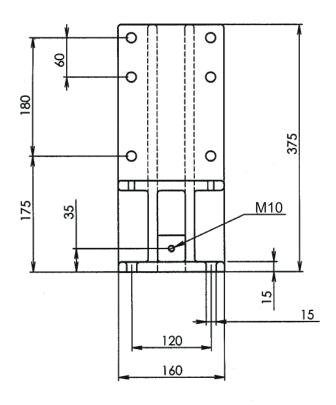
7.5 Feet for CTP2 beam "P91206314"

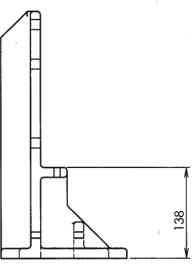
Fixing and support of the **CTP** travel path beam on the welding bench.

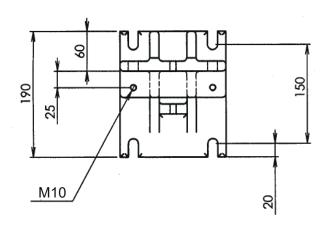
Characteristics:

- Cast iron base.Weight: 14 Kg

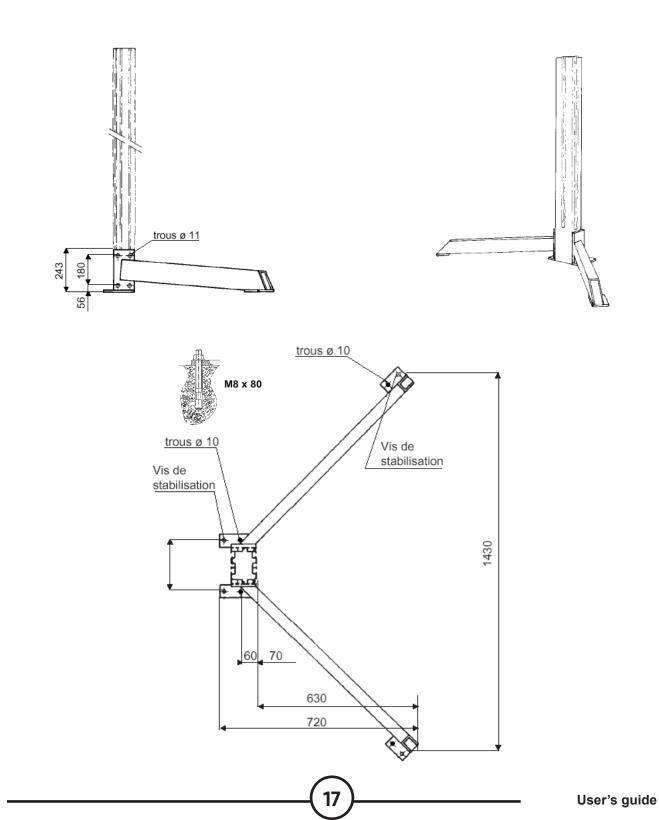








- For safety, the foot must be fixed to the floor.Maximum beam height 2 m.



7.7 Stabiliser foot for CTP2 vertical beam "Please enquire"

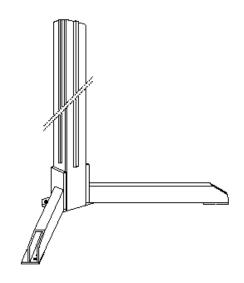
Common use of the stabiliser foot for CTP2 beam

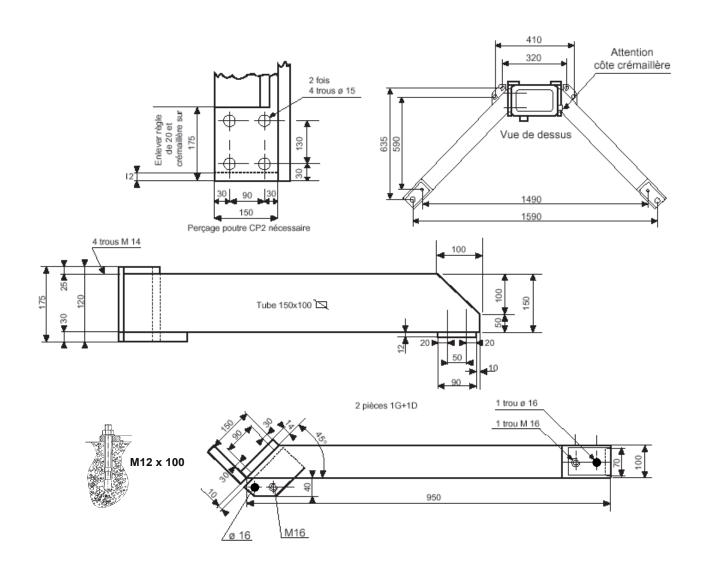
- · Vertical lathe.

• For use only with Beam CTP2 steel L= 1.75 m

Beam CTP2 steel L= 2.75 m

- Mechanically welded structure made of 150 x 100 mm tubes.
- Supplied with fasteners and pins.
 For safety, the foot should be fixed to the floor.
- The beam is fixed on three sides.
- Weight 60 Kg





C-ASSEMBLY AND INSTALLATION

1 - Floor preparation

The floor needs particular preparation for installing the machine; we recommend a concrete floor for the machine to be satisfactorily stable.

- · Thickness of concrete slab: 200mm
- Flatness over the entire area: ± 5mm
- Height difference over the entire area: 30mm
- Height difference: 5 mm/m
- · Concrete slab in one piece
- 20 Mpa (350kg/m³) concrete with metal reinforcement



The thickness of the slab and its metal reinforcement are provided for guidance and must be adapted to the characteristics of the floor.

2 - Anchoring to the ground



For fastening the machines, refer to section "B - DESCRIPTION".



Slinging is indicated as a principle, but is different for each machine depending on the model and equipment.



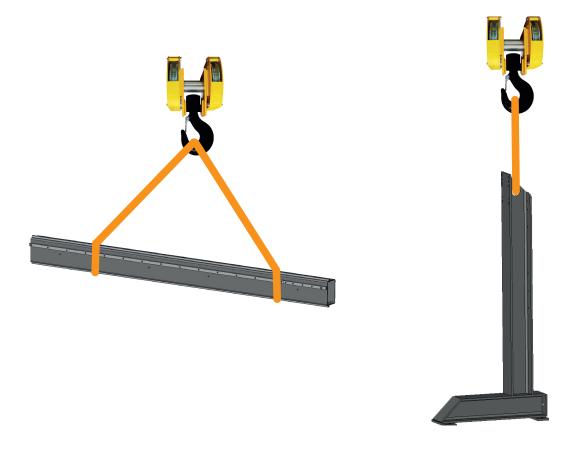
WARNING: Protect the sensitive parts while slinging. Use webbing



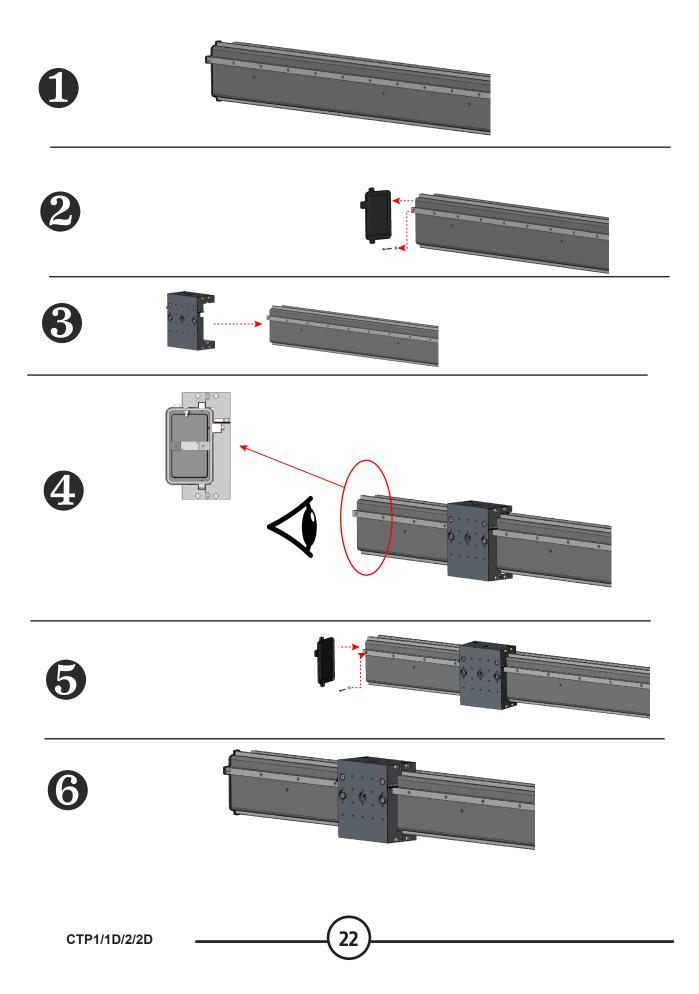
During any lifting operations, the use of appropriate PPE (Personal Protective Equipment) is MANDATORY.



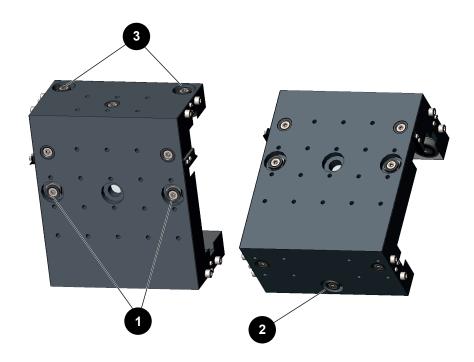
For the weight of machines, refer to section "B - DESCRIPTION".



71



- 1. Check that the beam is horizontal.
- 2. Take off the protection at the end of the beam and the mechanical stop screw.
- 3. Take off the protective covers of the carriage CTP2 to access the rollers.
- 4. Put the carriage in place.
- 5. Adjustments of eccentric rollers of the carriage in the following order:
 - Behind the carriage, adjust the two eccentric rollers, with tolerance to allow the rollers to rotate.
 - Below the carriage, adjust the single eccentric roller to bring the lower assembly closer on the beam.
 - Below the carriage, adjust the two eccentric rollers to bring the upper assembly closer on the beam.



- 6. Check that the carriage slides on the beam.
- 7. Put back the protective covers of the carriage CTP2 to protect safety.
- 8. Check that the carriage slides on the beam.
- 9. Put back the protection at the end of the beam and the mechanical stop screw.
- 10. Carriage assembly is complete.

D-MAINTENANCE

1 - Care

For a long and trouble-free life, the machine requires a minimum level of care and maintenance.

The frequency of such maintenance is indicated for production in one work shift per day. For higher production rates, increase the maintenance frequencies accordingly.

Your maintenance department could photocopy these pages to track maintenance frequencies and times and the operations completed (tick the appropriate box).

2 - Maintenance schedule

Step	Operation	OK	NOK
Α	<u>Motor</u>	~	X
	Geared motor with lifelong grease lubrication Check the condition of motor brushes after 2000 hours of running		

CTP1/1D/2/2D ______

How to order:

The photos or sketches identify nearly every part in a machine or an installation.

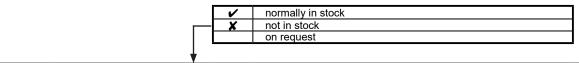
The descriptive tables include 3 kinds of items:

- those normally held in stock:
- · items not held in stock: x
- · those available on request: no references

(For these, we recommend that you send us a copy of the page with the list of parts duly completed. Please specify in the Order column the number of parts desired and indicate the type and the serial number of your equipment.)

For items noted on the photos or sketches but not in the tables, send a copy of the page concerned, highlighting the particular reference.

For example:



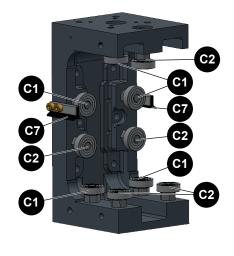
Item	Part no	Stock	Order	Description
E1	W000XXXXXX	/		Machine interface board
G2	W000XXXXXX	X		Flow meter
A3	P9357XXXX			Printed front side metal sheeting

For parts order, give the quantity required and put the number of your machine in the box below.



CTP1 CARRIAGE

CTP2 CARRIAGE

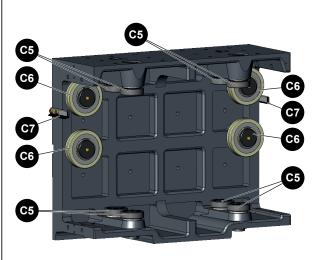




CTP1 D CARRIAGE

CTP2 D CARRIAGE

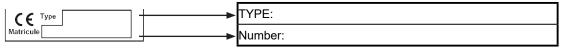


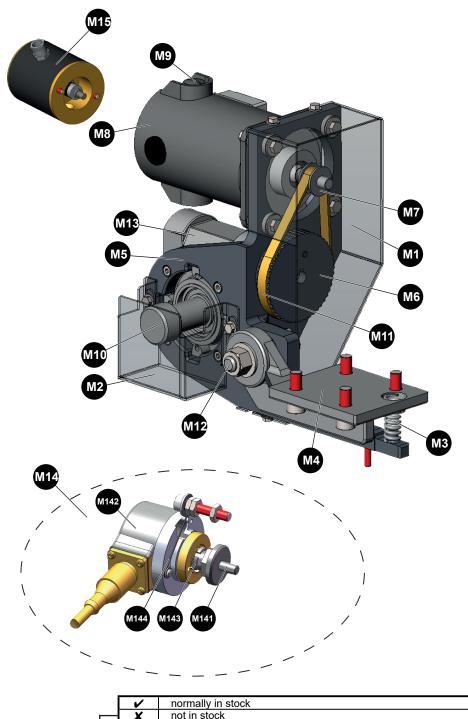


	~	normally in stock
_	×	not in stock
		on request

Item	Part no	Stock	Order	Description	
	W000315329			CTP1 carriage assembly	
	P91206740			CTP1 reinforced carriage assembly	
	W000315347			CTP1 D carriage assembly	
	W000315333			CTP2 carriage assembly	
	W000315351			CTP2 D carriage assembly	
				CTP1 carriage	
C1	W000140186	X		Centred roller assembly	
	P00321004			Bearing,10 x 30 x 9 6200 2RS P	
	P91206027			Straight shaft	
C2	W000140187	X		Eccentric roller assembly	
	P00321004			Bearing,10 x 30 x 9 6200 2RS P	
	P91206028			Eccentric shaft	
Reinforced CTP1 carriage					
C1	P91206741			Centred roller assembly	
	PC6200571			Bearing,10X 30X14 5200A2RS1	
	P91206742			Straight shaft	
C2	P91206743			Eccentric roller assembly	
	PC6200571			Bearing,10X 30X14 5200A2RS1	
	P91206744			Eccentric shaft	
				CTP1D and CTP2 carriage	
C5	W000140252	X		Roller and shaft assembly	
	PC6200823			Roller, 20X 52X 14 LR204NPPU	
	P91207156			Roller shaft	
	P91207157			Roller spacer	
		Y		CTP2 D carriage	
C5	W000140252	X		Roller and shaft assembly	
	PC6200823			Roller, 20X 52X 14 LR204NPPU	
	P91207156			Roller shaft	
	P91207157			Roller spacer	
C6	PC6200826			Roller, 40X 85X18 LR208-2RS	
	P91206464			Roller shaft	
C7	PC6201566			Scraper band (length 500)	

• For parts order, give the quantity required and put the number of your machine in the box below.





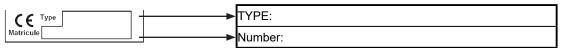
	/	normally in stock
\dashv	X	not in stock
		on request

Item	Part no	Stock	Order	Description
	P91097001			CTP motorisation assembly 3 m/min - right - with tacho
	W000315328			CTP motorisation assembly 3 m/min - right
	P91097002			CTP motorisation assembly 3 m/min - left - with tacho
	W000315361			CTP motorisation assembly 10 m/min - right - with tacho
	P91208035			CTP motorisation assembly 10 m/min - left - with tacho

CTP1/1D/2/2D _______ 2

M2	P91206414		Motor pinion cover
М3	PC6200144		Compression spring
M6	W000140191	X	Driven pulley
M7	P91206250		Driving pulley
M8	W000164864	X	A77 motor + adaptable
М9	P91614713		Set of 2 brushes
M10	W000140179	X	18-tooth shaft pinion
M11	P91206049		Belt, 130 XL 037
M12	P91206255		Shaft for power system
	PC6200613		Needle bearing, AXK2035
	PC6200614		Thrust bearing washer, AS2035
M14	P95248613		Hollow shaft encoder option
M141	P95248614		M6 encoder support shaft
M142	PC5708028		5000 point encoder ALE=15 5-30V M12
M143	PC5708029		Insulating insert
M144	P95248612		Anti-rotation tab
M15	P91300200		Tacho dynamo
			For version: 3 m/min - right - with tacho 3 m/min - right 10 m/min - right - with tacho
M1	P91206256		Motor drive cover
M4	P91206254		Machined yoke
M5	P91207343		Articulated support machined casting
			For version: 3 m/min - left - with tacho 10 m/min - left - with tacho
M1	P91208038		Motor drive cover
M4	P91208037		Machined yoke
M5	P91208036		Articulated support machined casting
			For version: 3 m/min - right - with tacho 3 m/min - right 3 m/min - left - with tacho
M13	W000140180		Reduction gear, VF 44 1-46
			For version: 10 m/min - right - with tacho 10 m/min - left - with tacho
M13	W000140219		Reduction gear, VF 44 1/14
			1

• For parts order, give the quantity required and put the number of your machine in the box below.



PERSONAL NOTES

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CTP1/1D/2/2D _______ 3