INSTRUCTUCTION

MANUAL

Model TUVPC

TiTAN

LIFTING TECHNOLOGIES

Note: Owner/Operator must read and understand this instruction manual before using the clamp.

General

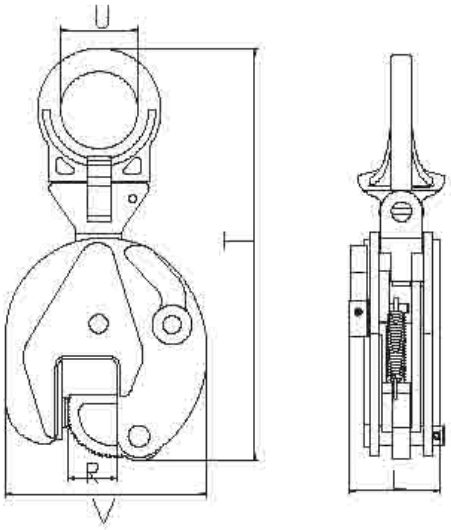
This manual contains important information for the correct installation, operation, and maintenance of the equipment described herein. The use of any clamp presents some risk of personal injury or property damage. All persons involved in such installation, operation and maintenance should be thoroughly familiar with the contents of this manual. To safeguard against the possibility of property damage or personal injury follow the recommendations and instructions in this manual and keep it for further reference.

Aside from transporting plate, this clamp is well-suited to turning over steel structures and welded constructions.

These clamps are type-tested 5 times the rated load and each unit is proof-tested twice the rated load.

Dot not use the clamps in areas containing flammable vapors, liquids, gasses or combustible dust or fibers. Do not use the clamp in highly corrosive, abrasive, wet environments or in applications involving exposure to temperatures below -40°C or above 80°C

Specification



Model TVPC		005	010	020	030	050	080	120	160
Rated capacity t		0.5	1.0	2.0	3.0	5.0	8.0	12.0	16.0
Test load KG		1000	2000	4000	6000	10000	16000	24000	32000
Jaw Opening (R) mm		0－15	0－20	0－25	0－30	0-50	0-45	50-90	60-100
	T	205	300	385	430	500	600	700	710
	U	30	50	68	75	68	88	90	100
	V	105	145	175	215	232	290	420	445
	L	48	66	75	102	112	125	128	128
Net weight kg		2	5	8	15	23	37	50	65

Installation

3.1 Estimate the plate that is to be lifted or moved and make sure it does not exceed the rated load of the clamp.

3.2 This clamp with pivoting shackle can be used for lifting and transporting plate at various angles, but the load capacity is reduced, as seen on the diagram below showing the load/force capacities.

3.3 The pivoting shackle has the added advantage of providing enough clamping force to hold a plate safely, even when transporting large-sized plates with a 2-legged lifting system. Slipping or damage to the clamp is prevented.

When using two clamps to transport large-sized plates, pay attention to the reduced capacities of the clamps.

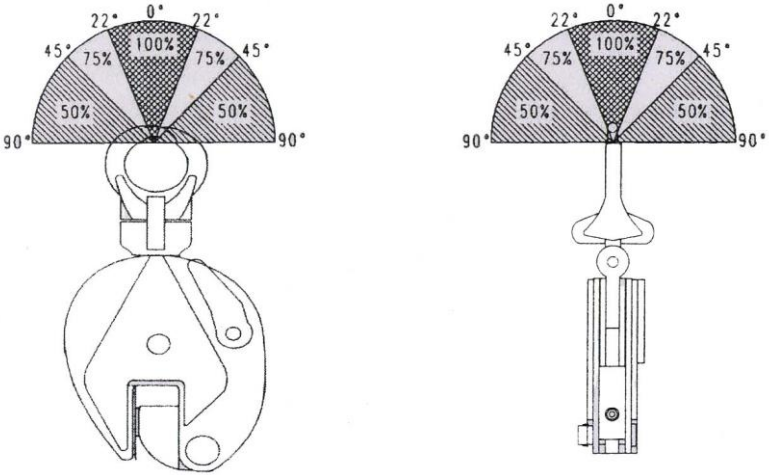
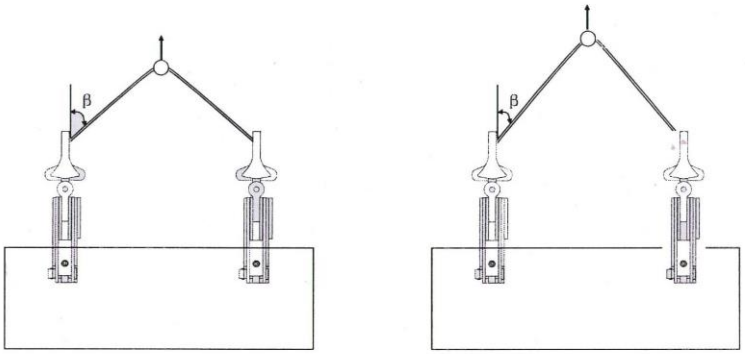


Diagram of forces



Up to β =40° -60°
La=1

Up to β =40°
La=1.4

F=Wokring Load Limit of the clamp
La= factor
Calculation example: F=1000kg, La=0.8(β =50°)
Rated Load=F • La=1000kg×50% • 1000kg×0.8=400kg capacity (WLL) in this lifting method

The larger the angle of inclination on 2-leg slings the greater is the tension force between the individual slings and clamps that has to be taken up in addition to the plate. The reductions in carrying capacity for the inclinations 45 and from 45~ to 60~ as shown as follows. (Page 8) Inclination angles larger than 60~ are not permissible.

3.4 Make sure that the plate surface must have a hardness below HRC 30/ Brinell 300.

3.5 Make a sure that the support to which the pivoting shackled is attached is strong enough to hold several times the weight of the plate.

4. Operation

Warning

To avoid damage and/or personal injury:

1 .Do not exceed maximum load of the clamp.

2. Do not use the clamp to lift or transport people.

3. Do not use damaged clamp or clamp that is not working properly.

4. Do not lift or transport loads over people and make sure all personnel remain clear of supported plate.

5. Do not lift the plate that is not fully engaged with the clamping jaws.

6. Do not leave load suspended by the clamp or unattended unless specific precautions have been taken.

7. Do not lift loads that are not balanced and the holding action is not secure.

SAFETY WARNING

Never Exceed Maximum Capacity

Never Lift UNDER 20% of the Rated Capacity

Used on all hot rolled structural steel plates and sections up to a surface hardness of 300 Brinell/32 Rockwell C

4.1 Attaching the clamp.

Turn the function lever clockwise to disengage the jaws. Then put the plate to the end of the mouth of clamp. Move the function lever counter- clockwise and lock.

4.2 Danger zones

Do not lift or transport loads while personnel are in the danger zone.

Do not stand or place hands or feet under the raised plate.

Raised loads are not to be left unattended.

The operator may only start to move the load when he is sure the load will not overturn and that all personnel have left the danger zone.

4.3 Removing the clamp.

Remove the load-tension from the clamp.

Move the function lever clockwise to disengage the jaws.

5. Maintenance/Inspection

To maintain continuous and satisfactory operation, a regular inspection procedure must be initiated so that worn or damaged parts can be replaced before they become unsafe.

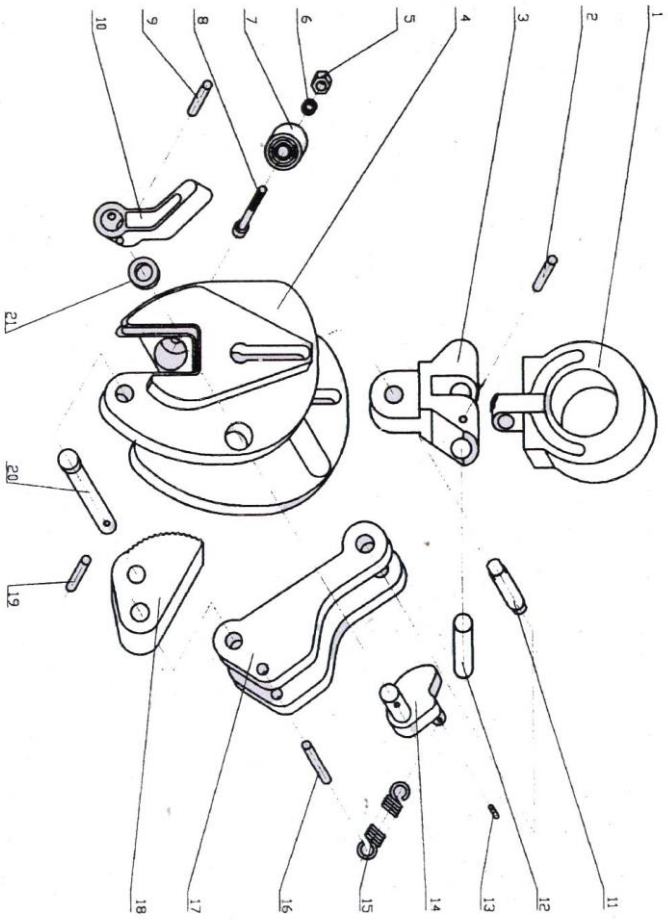
If faults are detected the clamp must be removed from service immediately.

The intervals of inspection must be determined by the individual application and are based upon the type of service to which the clamp is subjected.

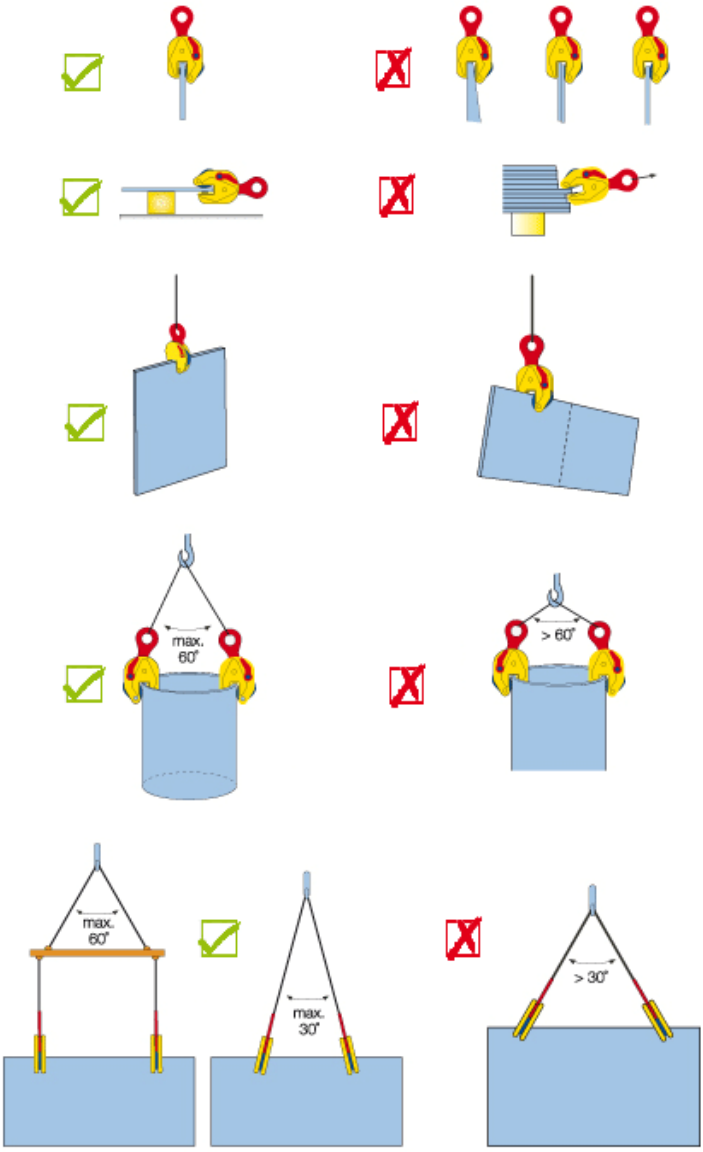
The components of the clamp are to be inspected for damage, wear, corrosion or other irregularities.

Repairs may only be carried out by a specialist workshop that uses original spare parts.

6. Parts List



Item	Description	Quantity
1	Pivoting Shackle	1
2	Roll pin	1
3	Connecting Block	1
4	Body	1
5	Locknut	1
6	Lock washer	1
7	Round Jaw	1
8	Screw	1
9	Roll pin	1
10	Function Lever	1
11	Connecting Block Pin	1
12	Pivoting Shackle Pin	1
13	Roll pin	1
14	Function Block	1
15	Pulling Spring	1
16	Roll pin	1
17	Connecting Plate	1
18	Clamping Jaw	1
19	Roll pin	1
20	Jaw Pin	1
21	Shim Washer	1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