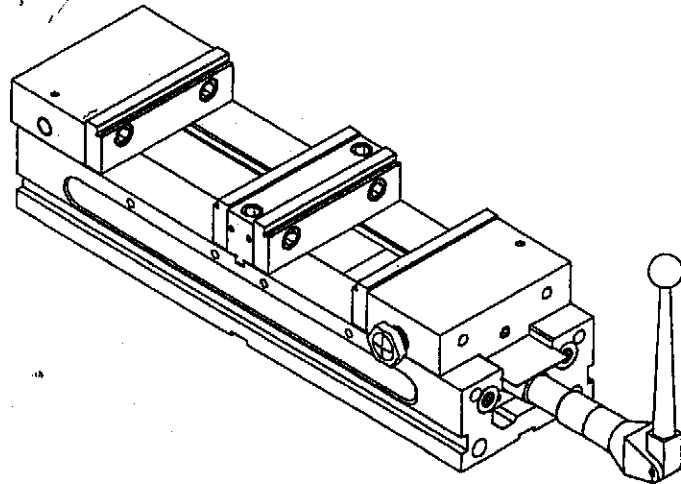


DOUBLE CLAMP VISE

"TLD" SERIES



OPERATION MANUAL

Thanks for your purchase of the double clamp vise. Please read this operating-manual carefully before using to improve handling of this unit. And you should prevent the unsuitable operating from damage.

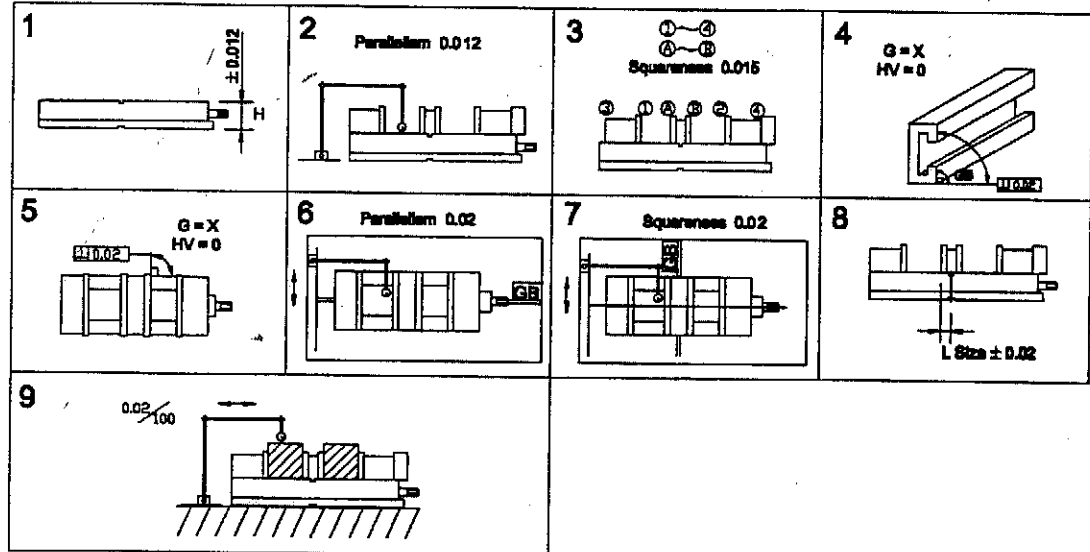
Thanks for your kindly cooperation. Please keep this manual and reproduce it whenever necessary.

DOUBLE CLAMPING VISE INSPECTION RECORD

Model: 96259361 Mfg. No. 1504024

Inspector: C.P.Chen Date: APR. 28 2015

ACCURACY:

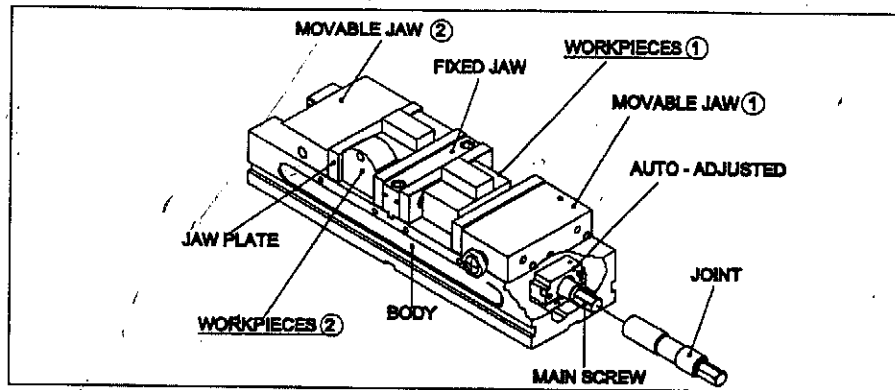


NO	Inspection Items	Per 4"	Guarantee	Finding
1	"H" tolerance: running face to bottom within		$\pm 0.0005"$ $\pm (0.012\text{mm})$	$+0.0002"$
2	Parallelism: running face to bottom of bed		$0.0005"$ (0.012mm)	$0.0001"$
3	Squareness: between running face and jaw plate		$0.0006"$ (0.015mm)	$0.0003"$
4	Squareness: both sides to running face		$0.0008"$ (0.02mm)	$0.0006"$
5	Squareness: both sides to fixed jaw plate		$0.0008"$ (0.02mm)	$0.0007"$
6	Parallelism: keyways on bottom of bed to jaw plate		$0.0008"$ (0.02mm)	$0.0003"$
7	Squareness: keyways on bottom of bed to jaw plate		$0.0008"$ (0.02mm)	$0.0003"$
8	"L" tolerance: keyways on bottom of bed to jaw plate within		$\pm 0.0008"$ $\pm (0.02\text{mm})$	$+0.0003"$
9	1. Parallelism: running face of the test block to bottom of bed		$0.0008"$ (0.02mm)	$0.0005"$
	2. Jaw opening		$4"$ (102mm)	OK

* NO. 4 & 5 TLD - HV TYPE HAVE FINDING

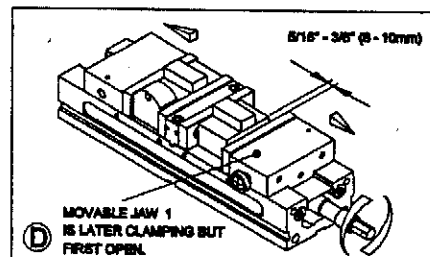
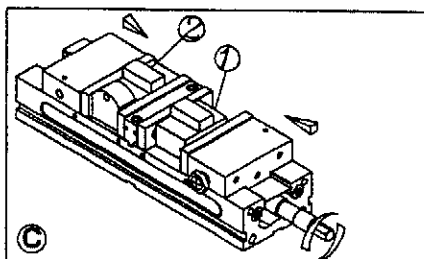
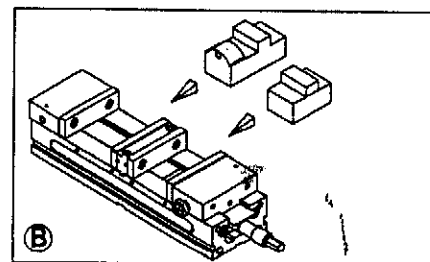
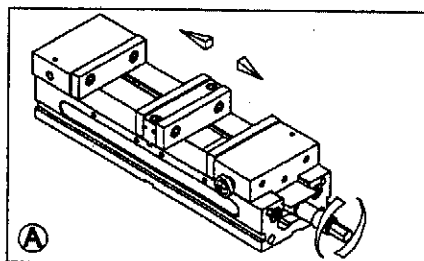
1.FEATURE:

TLD bears two movable jaws located end of two sides, and a fixed jaw in the middle of the vise. Under this design, the vise can clamp two different dimension workpieces. Although there is a little tolerance on workpiece itself, the vise design has supplemental device on the workpiece.



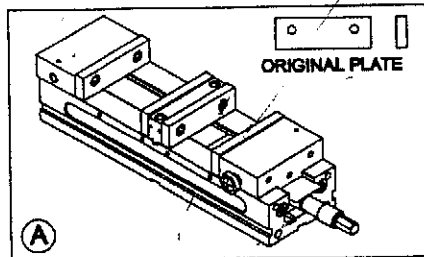
2.OPERATION PROCEDURE:

- ① To turn the main screw. The movable jaw ② will be moved to the end; Then open ① movable jaw. You will feel a little bit tighten. (This is normal situation.) more force is required. After that, the opening distance more than workpieces.
- ② To locate the workpieces on vise respectively.
- ③ To turn main screw, No.2 workpiece clamped first, then turn main screw continuously to tighten No.1 workpiece.
- ④ After workpieces machined, release the main screw, and movable jaw ① will be removing first, then movable jaw ② moved later. For your reference. Movable jaw ① is always opening distance within $5/16 - 3/8"$ (8-10mm).
- ⑤ After workpieces replaced, go back to ③ for repeating machining, without any resetting the vise.

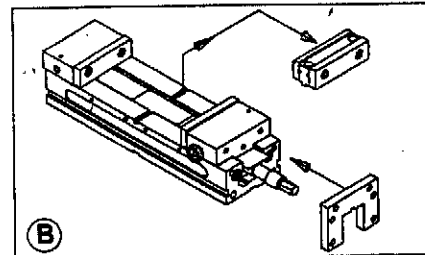


3.TLD CLAMPING RANGE

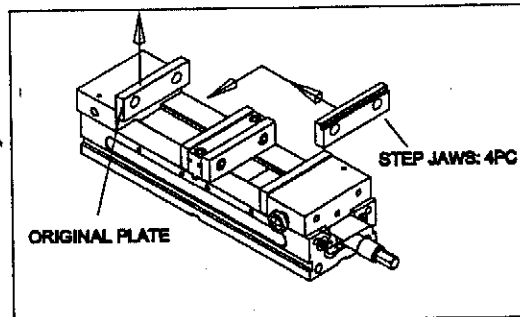
Ⓐ To use the current vise opening when the workpiece dimension is under 0-125mm 0-90mm



Ⓑ To take out the fixed jaw and insert a movable plate (tighten 6 pcs of screws) when the workpiece dimension is under 125-315mm(4.98"~12.3")

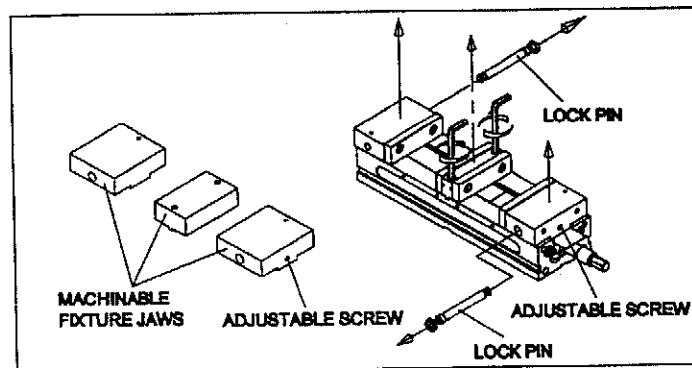


4.TLD L STEP JAWS OPENING INTERCHANGE



5. INTERCHANGE AND OPERATION MANUAL ON MACHINABLE FIXTURE JAWS REPLACEMENT

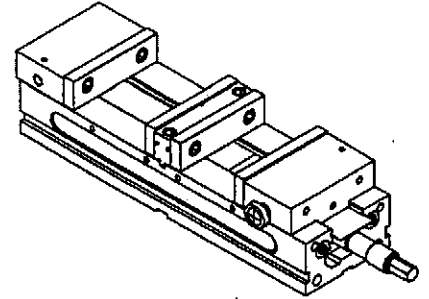
To loose the fixed jaw screw, release the adjustable screw on the movable jaw by one to two circle, pull out a lock pin located in the middle of movable jaw, then you may change it. As soft jaws are interchangeable, the different and ill-reulation workpieces can be clamped.



NEW DESIGN & UNIQUE CONSTRUCTION

DOUBLE CLAMP SEAT:

- ▲ One handle can simultaneously operate two movable jaws and clamps 2 pieces of workpiece of same size or different size or one large workpiece. This model can increase efficiency and productivity of CNC machine.
- ▲ The LOCKWELL® ANTI - LIFT mechanism (U.S.A patent no.516027) movable jaws provide alignment to workpiece without jaw lift.
- ▲ There are 6 kinds of clamping ways to meet workpieces of different shapes and sizes.
- ▲ The whole body is precisely grounded and height tolerance is within $\pm 0.025\text{mm}/\text{m} (\pm 0.001")$, therefore several vises can be line up for production.

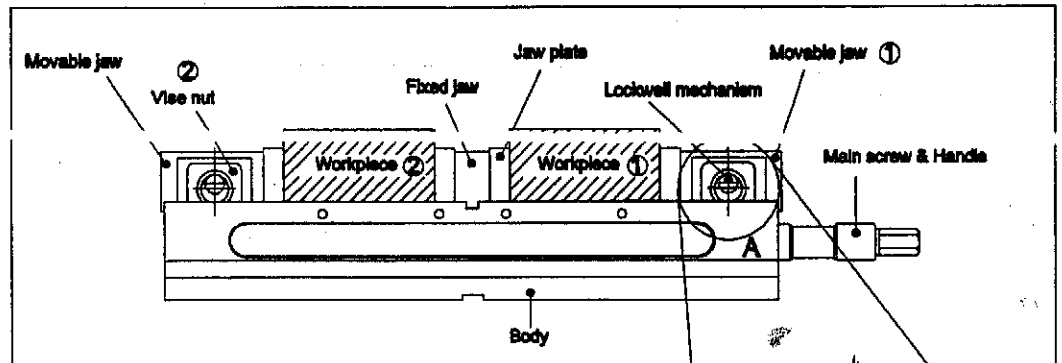


HIGH & EXCELLENT RIGIDITY.

- ▲ The vises is made of FCD. 80000 psi(55kg/cm²). Ductile iron and the slide ways are hardened to HRC45°. The rigid construction prevents the base from distortion.
- ▲ Precision made to high accuracy standard. Details please refer to the inspection specification.

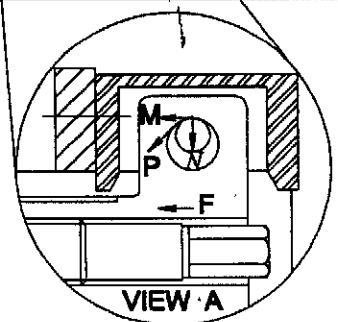
FEATURE:

LOCKWELL® ANTI - LIFT MECHANISM

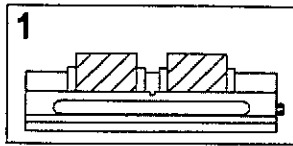


LOCKWELL® ANTI - LIFT
MECHANISM
(U.S.A patent no.516027)

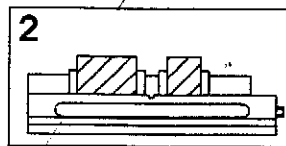
- ▲ Clamping force equalization and ANTI - LIFT mechanism features virtually eliminate the deflection of fixed center jaw and movable jaw lift.
- ▲ Clamping range for clamping 2 pieces of workpieces simultaneously is 125mm(4") each or 275mm(10.8") for one large workpiece.
- ▲ Double clamp seat: (U.S.A patent no.516027)



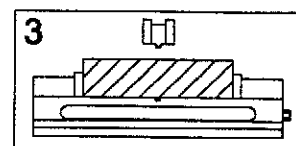
CLAMPING EXAMPLES OF DIFFERENT APPLICATIONS



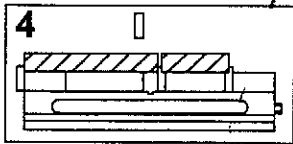
▲ clamping 2 pcs of same size of workpieces
Max. Capacity: 125m/m(4.9")



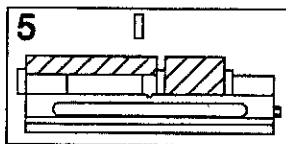
▲ clamping 2 pcs of different size of workpieces
Max. Capacity: 125m/m(4.9")



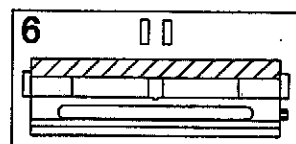
▲ large workpieces is able to be clamped after moving fixed jaw
Max. Capacity: 313m/m(12.3")



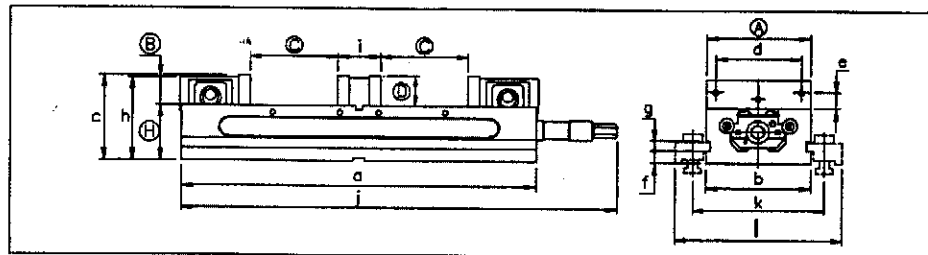
▲ stepped jaw plate for thin workpieces
Max. capacity :275m/m(10.8")



▲ clamping 2 pcs different workpieces both in size and shape
Max. Capacity: 275m/m(10.8")



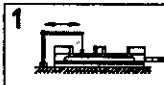
▲ large thin workpieces is able to be clamped after removing jaw plate on fixed jaw
Max. Capacity: 520m/m(20.5")



Model	A	B	C	D	a	b	c	d	e	f	g	h	H	I	J	k	l	weight
TLD-40G (TLD-40HV)	105	33	80	38	405	104	101.5	83.5	17.5	13	31	85.5	63.5	47.2	430	143	185	20
TLD-80G (TLD-80HV)	152	41.5	125	44.5	530	154	123.5	98.42	23.5	18	46	128.5	85.85	64	598	193	245	48

TLD-40G, TLD-80G: Match view. TLD-40HV, TLD-80HV(Horizontal & Vertical 2 way)

INSPECTION SPECIFICATION:



Parallelism: running face to bottom of bed.
Guaranteed: 0.012mm
(0.0005")



Squareness: between running face to jaw plate.
Guaranteed: 0.015mm
(0.0006")



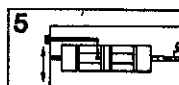
Squareness: both sides to fixed jaw plate.
Guaranteed: 0.02mm
(0.0008")

*No.3 Only applies to TLD - in HV version

Inspection per 100mm(4.00")



Parallelism: keyways on bottom of bed to jaw plate.
Guaranteed: 0.02mm
(0.0008")



Squareness: keyways on bottom of bed to jaw
Guaranteed: 0.02mm
(0.0008")



Parallelism: running face of the test block to bottom
Guaranteed: 0.02mm
(0.0008")

(To be continued)

DOUBLE CLAMP VISE WITH MACHINABLE FIXTURE JAWS

Keeping Up With Technology and Creating High Quality Styles

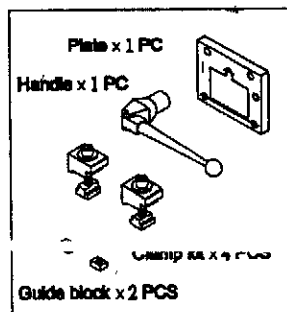
▲ MACHINABLE FIXTURE JAWS

This is a new workholding concept.
When you open it your requirements are going
to be satisfied. Just machine the surface of the
flexible soft jaws based on yours needs. It is
not only quick, also very economical.

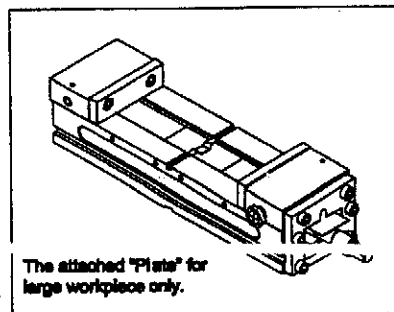
SOFT JAWS FOR TLD-60G/HV

MODEL: TLD-60G/HV

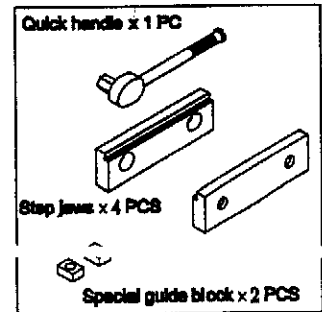
STANDARD ACCESSORIES



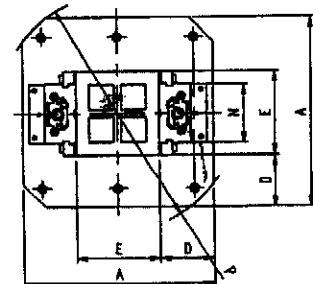
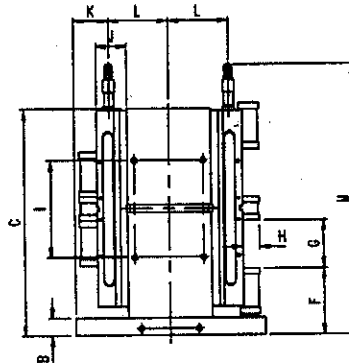
USAGE OF "PLATE"



OPTIONAL ACCESSORIES



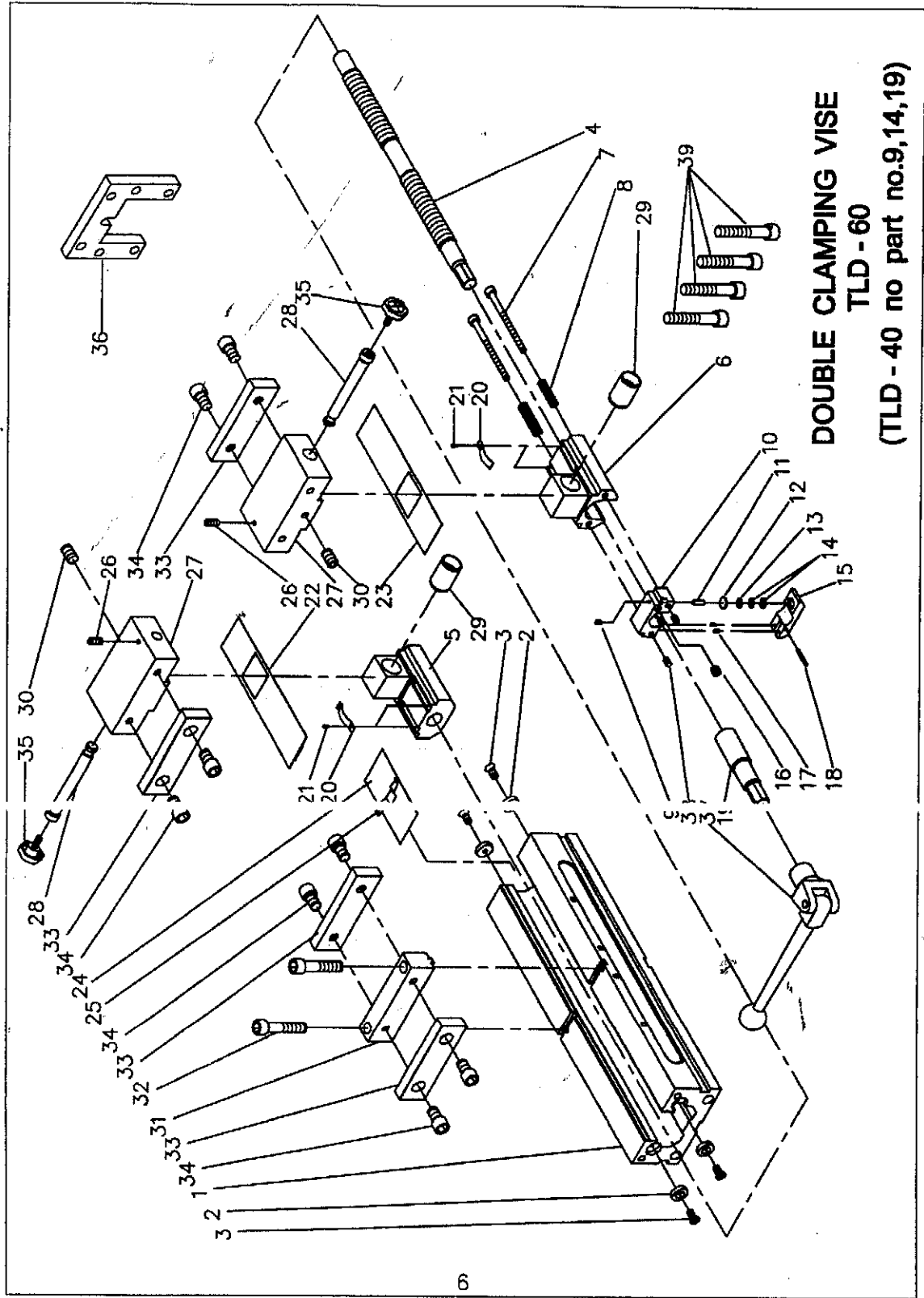
JIG BLOCK





unit kg/mm
 lb/in

MODEL	USE VISE	PALLET SIZE																	weight
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	P		
TLD-60-4B	TLD-60	500 x 500	800	45	800	140	220	175.5	125.5	44.5	200	82.5	82	125	714	154	825	250	
			19.68	1.77	23.82	5.81	5.65	8	4.94	1.75	19.29	3.95	3.82	6.25	28.11	6.82	24.72	548	



DOUBLE CLAMPING VISE

TLD - 60

(TLD - 40 no part no.9,14,19)

PARTS NUMBER

MODEL: TLD60

No.	Part no.	Description	No.	Part no.	Description
01	TLD6101	Body	22	TLD6A01	Slide cover
02	TLD6811	Stopper	23	TLD6A02	Slide cover
03	OB0681	Bolt	24	TLD6A03	Slide cover
04	TLD6201	Main screw	25	TLD6A04	Slide cover
05	TLD6202	Fore-vice nut	26	OB0649	Set bolt include steel ball
06	TLD6204	Step-vice nut	27	TLD6301	Movable jaw
07	OB0126	Bolt	28	TLD6303	Lock pin
08	OB1526	Spring	29	TLD6222	Sleeve
10	TLD6203	Stopper for adjusting	30	OB0552	Set bolt
11	TLD6208	Adjusting pin	31	TLD6302	Fixed jaw
12	TLD6206	Collar	32	OB0149	Bolt
13	OB1673	Disc spring	33	TLD6401	Jaw
14	OB1605	Disc spring	34	OB0157	Bolt
15	TLD6205	Brake	35	OB1710	Bolt
16	TLD6207	Adjusting bolt	36	TLD6304	Plate
17	OB1543	Spring	37	CAT610A	Handle
18	OB1355	Pin	38	OB0510	Set bolt
19	TLD6501	Joint	39	OB0160	Bolt
20	OB1590	Spring		TLD6305	Fixed soft jaw
21	OB0675	Bolt		TLD6306	Movable soft jaw