赤字：ともえテック参考計測値
Red value is measured by TomoeTec

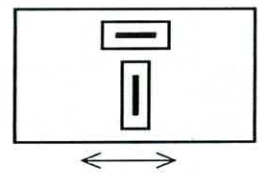
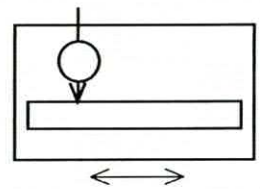
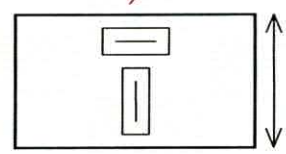
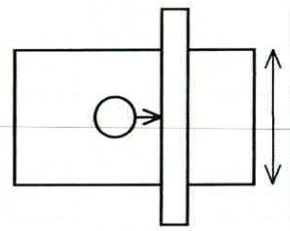
立形マシニングセンタ検査成績表
VERTICAL MACHINING CENTER TEST RECORD

型式 TYPE	MILLAC 468V	製造番号 SERIAL No.	155079	制御装置番号 NC No.	

静的精度検査
GEOMETRIC ACCURACY TEST

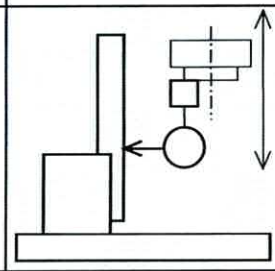
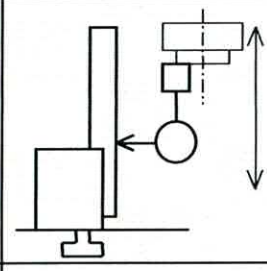
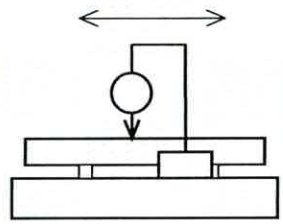
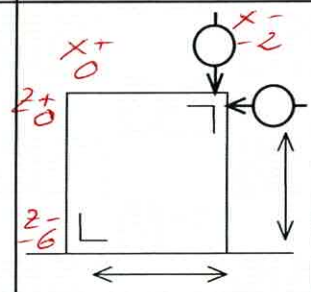
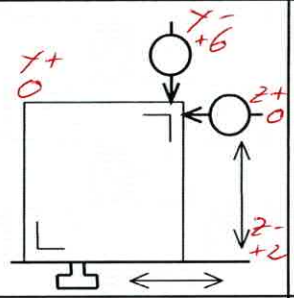
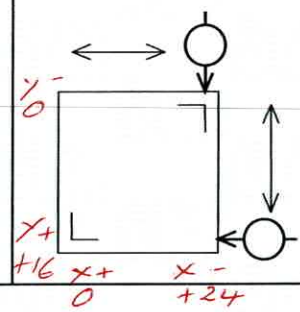
検査実施日：2011. 05. 16
INSPECTION DATE : 16. May. 11

単位 UNIT : mm

No.	検査事項 ITEM		測定方法図 MEASURING METHOD	許容値 TOLERANCE	測定値 RESULTANT
1	テーブルのX軸方向の運動の真直度 STRAIGHTNESS OF X-AXIS MOVEMENT ON TABLE	X-Z面内 IN X-Z DIRECTION	X+450/-362 	0.040/M	0.025 0.020
		Y-Z面内 IN Y-Z DIRECTION	≠	0.040/M	0.020 0.030
		X-Y面内 IN X-Y DIRECTION		0.005/500	0.003 0.004/600
2	テーブルのY軸方向の運動の真直度 STRAIGHTNESS OF Y-AXIS MOVEMENT ON TABLE	X-Z面内 IN X-Z DIRECTION	Y+217 ↓ -217 	0.030/M	0.015 0.020
		Y-Z面内 IN Y-Z DIRECTION		0.040/M	0.025 0.030
		X-Y面内 IN X-Y DIRECTION		0.005/500	0.003 0.003/400

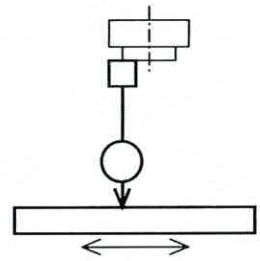
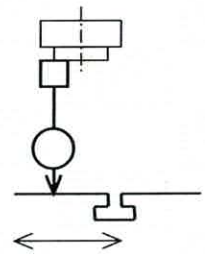
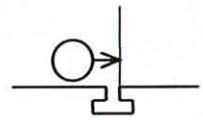
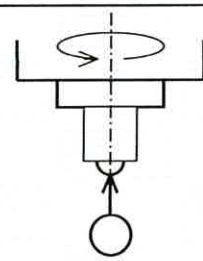
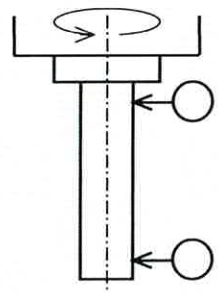
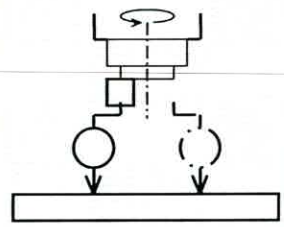
赤字：ともえテック参考計測値
Red value is measured by TomoeTec

(155079 No.2)

No.	検査事項 ITEM		測定方法図 MEASURING METHOD	許容値 TOLERANCE	測定値 RESULTANT
3	主軸頭のZ軸方向の運動の真直度 STRAIGHTNESS OF Z-AXIS MOVEMENT OF SPINDLE HEAD	X-Z面内 IN X-Z DIRECTION		0.007/300	0.002 0.004
		Y-Z面内 IN Y-Z DIRECTION		0.007/300	0.003 0.004
4	テーブル上面の真直度 STRAIGHTNESS OF TABLE TOP	X-Z面内 IN X-Z DIRECTION		0.010	0.004 0.004
		Y-Z面内 IN Y-Z DIRECTION		0.010	0.004 0.010
5	各軸方向の運動相互の直角度 SQUARENESS OF EACH AXIS MOVEMENT	X-Z面内 IN X-Z DIRECTION		0.010/300	0.005 0.008
		Y-Z面内 IN Y-Z DIRECTION		0.010/300	0.005 0.004
		X-Y面内 IN X-Y DIRECTION		0.008/300	0.004 0.008

赤字：ともえテック参考計測値
Red value is measured by TomoeTec

(155079 No.3)

No.	検査事項 ITEM		測定方法図 MEASURING METHOD	許容値 TOLERANCE	測定値 RESULTANT
6	X軸方向の運動とテーブル上面との平行度 PARALLELISM OF TABLE AND X-AXIS MOVEMENT			0.010	0.008 0.008
7	Y軸方向の運動とテーブル上面との平行度 PARALLELISM OF TABLE AND Y-AXIS MOVEMENT			0.010	0.008 0.008
8	X軸方向の運動と基準T溝側面との平行度 PARALLELISM OF LONGITUDINAL MOVEMENT OF TABLE CENTER T SLOT			0.010	0.006 (未)
9	主軸のZ軸方向の動き CAM ACTION OF SPINDLE IN Z-AXIS DIRECTION			0.003	0.001 0.001
10	主軸穴内面の振れ RUN OUT OF INTERNAL TAPER OF SPINDLE	テストバーの元部 AT FIXED END OF TEST BAR		0.004	0.002 0.002
		テストバーの先部 AT A POINT OF 300mm FROM SPINDLE NOSE		0.010	0.007 (未)
11	主軸中心線とテーブル上面との直角度 SQUARENESS OF SPINDLE CENTER TO TABLE TOP	X軸方向 X DIRECTION		0.010/300	0.008 0.008
		Y軸方向 Y DIRECTION		0.010/300	0.007 0.008

赤字：ともえテック参考計測値
Red value is measured by TomoeTec

(155079 No.4)

No.	検査事項 ITEM		測定方法図 MEASURING METHOD	許容値 TOLERANCE	測定値 RESULTANT
12	位置決め精度 POSITIONING ACCURACY	X 軸 X-AXIS	レーザー測長器 LASER INTERFEROMETER	0.005/300	(0.004/300) 0.003 0.006/750
		Y 軸 Y-AXIS		0.005/300	0.003 0.003/400
		Z 軸 Z-AXIS		0.005/300	0.003 (#)
13	位置決め繰り返し精度 注1) POSITIONING REPEATABILITY NOTE1)	X 軸 X-AXIS		±0.003/100	±0.001 (#)
		Y 軸 Y-AXIS			±0.001 (#)
		Z 軸 Z-AXIS			±0.001 (#)

備　考
Remarks

注1) 繰り返し精度は早送りにて7回行い、その最大値の1/2に±を付けた値をデータとする。
NOTE1) REPEATABILITY : CHECK ±1/2 MAXIMUM DIFFERENCE ON 7-TIMES AT RAPID POSITIONING