**Techno ME CNC Lathe Exp RKM**

**Exp. 001:- Plain turning with steps**

(STOCK/100,25,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X25

G00 Z5

G01 X24.5 F50

G01 Z-70

G00 X25

G00 Z0

G01 X24 F50

G01 Z-70

G00 X25

G00 Z0

G01 X23.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X23 F50

G01 Z-40

G00 X25

G00 Z0

G01 X22.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X22 F50

G01 Z-40

G00 X25

G00 Z0

G01 X21.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X21 F50

G01 Z-40

G00 X25

G00 Z0

G01 X20.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X20 F50

G01 Z-40

G00 X25

G00 Z0

G01 X19.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X19 F50

G01 Z-20

G00 X25

G00 Z0

G01 X18.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X18 F50

G01 Z-20

G00 X25

G00 Z0

G01 X17.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X17 F50

G01 Z-20

G00 X25

G00 Z0

G01 X16.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X16 F50

G01 Z-20

G00 X25

G00 Z50

M05 M09

M30

**Exp. 002:- Turning with chamfering**

(STOCK/100,25,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X25

G00 Z5

G01 X24.5 F50

G01 Z-70

G00 X25

G00 Z0

G01 X24 F50

G01 Z-70

G00 X25

G00 Z0

G01 X23.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X23 F50

G01 Z-40

G00 X25

G00 Z0

G01 X22.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X22 F50

G01 Z-40

G00 X25

G00 Z0

G01 X21.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X21 F50

G01 Z-40

G00 X25

G00 Z0

G01 X20.5 F50

G01 Z-40

G00 X25

G00 Z0

G01 X20 F50

G01 Z-40

G00 X25

G00 Z0

G01 X19.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X19 F50

G01 Z-20

G00 X25

G00 Z0

G01 X18.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X18 F50

G01 Z-20

G00 X25

G00 Z0

G01 X17.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X17 F50

G01 Z-20

G00 X25

G00 Z0

G01 X16.5 F50

G01 Z-20

G00 X25

G00 Z0

G01 X16 F50

G01 Z-20

G00 X25

G00 Z0

G01 X15 F100

G01 Z0

G01 X16 Z-2

G00 Z0

G01 X14 F100

G01 X16 Z-2

G00 X19

G00 Z-20

G01 X20 Z-22 F100

G00 Z-20

G01 X18 F100

G01 X20 Z-22

G00 X23

G00 Z-40

G01 X24 Z-42 F100

G00 Z-40

G01 X22 F100

G01 X24 Z-42

G00 X25

G00 Z100

M05 M09

M30

**Exp. 003:- taper turning by simple G01 codes**

(STOCK/100,25,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X25

G00 Z5

G01 X24.5 F50

G01 Z-70

G00 X25

G00 Z0

G01 X24 F50

G01 Z-70

G00 X25

G00 Z0

G01 X23.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X23 F100

G01 Z-30

G00 X25

G00 Z0

G01 X22.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X22 F100

G01 Z-30

G00 X25

G00 Z0

G01 X21.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X21 F100

G01 Z-30

G00 X25

G00 Z0

G01 X20.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X20 F100

G01 Z-30

G00 X25

G00 Z0

G01 X19.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X19 F100

G01 Z-30

G00 X25

G00 Z0

G01 X18.5 F100

G01 Z-30

G00 X25

G00 Z0

G01 X18 F10

G01 Z-30

G00 X25

G01 X23.5 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X23 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X22.5 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X22 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X21.5 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X21 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X20.5 F100

G01 X24 Z-60

G00 X25

G00 Z-30

G01 X20 F100

G01 X24 Z-60

G00 X25

G00 Z100

M05 M09

M30

**Exp. 003-2:- Taper turning by using G71 canned cycle**

(TOOL/STANDARD, 15, 60, 0.2, 12, 0)

(STOCK/100, 25, 0 ,0)

G00 X26

G00 Z5

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F50

N10 G00 X18

N11 G00 Z0

N12 G01 X18

N13 G01 Z-30

N14 G01 X20

N15 G01 X24 Z-60

N16 G01 Z-70

N20 G01 X26

G70 P10 Q20 F20

G00 X30

G00 Z50

M05 M09

M30

**Exp. 004:- Turning with clock wise radius**

(TOOL/STANDARD, 15, 60, 0.2, 12, 0)

(STOCK/100, 25, 0 ,0)

G00 X26

G00 Z1

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F5

N10 G01 X0

G01 Z0

G02 X20 Z-10 R10

G01 Z-30

G01 X22

G01 Z-60

G01 X24

G01 Z-70

N20 G01 X25

G70 P10 Q20 F20

G00 X30

G00 Z50

M05 M09

M30

**Exp. 005:- Thread cutting with turning or grooving**

(TOOL/STANDARD, 15, 60, 0.2, 12, 0)

(STOCK/100, 25, 0 ,0)

M03 S800 M08

G00 X26

G00 Z1

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F100

N10 G01 X18

G01 Z-10

G01 X22

G01 Z-60

G01 X24

N20 G01 Z-70

G70 P10 Q20 F20

G00 X30

G00 Z50

(TOOL/GROOVE,0,0,50,5,2,2,90,0)

T3 S500

G00 X25

G00 Z-60

G01 X22 F50

G01 Z-60

G00 X25

G00 Z-60

G01 X21.5 F100

G00 X25

G00 Z-60

G01 X21 F100

G00 X25

G00 Z-60

G01 X20.5 F100

G00 X25

G00 Z-60

G01 X20 F100

G00 X25

G00 Z-60

G01 X19.5 F100

G00 X25

G00 Z-60

G01 X19 F100

G00 X25

G00 Z-60

G01 X18.5 F100

G00 X25

G00 Z-60

G01 X18 F100

G00 X25

G00 Z50

(TOOL/THREAD,60,50,5,90)

T5 S300

G00 X18

G00 Z2

G01 X17 F100

G01 Z0

G01 X18 Z-2

G00 Z0

G01 X16 F100

G01 X18 Z-2

G00 X22

G00 Z-10

G76 P001255 Q50 R25

G76 X18 Z-58 P819 Q25 F2.5

G00 X30

G00 Z100

M05

M09

M30

**Exp. 006 :- CCW radius turning with drilling operation**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X26

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.2 F50

N10 G01 X16

G01 Z0

G03 X24 Z-8 R8

G01 Z-70

N20 G01 X25

G70 P10 Q20 F20

G00 X50

G00 Z100

(TOOL/DRILL,12,118,50)

T2 S600

G00 X0

G00 Z2

G74 R2

G74 X0 Z-25 Q2.0 F20

G00 Z100

(TOOL/STANDARD,15,75,.2,12,0)

T1

M05

M09

M30

**Exp. 007:- Turning with drilling or borring operations.**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X26

G00 Z2

G90 X25 Z-70 F50

X24.5

X24.0

G00 X50

G00 Z50

(TOOL/DRILL,12,118,90)

T4 S500

G00 X0

G00 Z2

G74 R1.000

G74 X0 Z-25 P200 Q200 R100 F20

G00 X50

(TOOL/STANDARD,345,75,.2,6,0)

T5

G00 X12

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.2 F50

N10 G01 X20

G01 Z0

G01 X20

G01 Z-10

G01 X16

G01 Z-20

N20 G01 X12

G70 P10 Q20 F20

G00 X12

G00 Z50

G00 Z100

(TOOL/STANDARD,15,75,.2,12,0)

T1

M05

M09

M30

**Exp. 008:- Turning with clock or counter clock wise radius turning.**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1500 M08

G00 X26

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.2 F50

N10 G01 X0

G01 Z0

G02 X16 Z-8 R8

G01 Z-28

G03 X22 Z-36 R10

G01 Z-60

G01 X24

G01 Z-70

N20 G01 X25

G70 P10 Q20 F20

G00 X50

G00 Z100

M05

M09

M30

**Exp. 009:- Turning with double grooving operations.**

(TOOL/STANDARD,15,60,0.2,10,0)

(STOCK/100,25.4,0,0)

M03 S800 M08

G00 X26

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F50

N10 G01 X20

G01 Z0

G01 Z-30

G01 X22

G01 Z-60

G01 X24

N20 G01 Z-70

G70 P10 Q20 F20

G00 X30

G00 Z50

(TOOL/DRILL,12,118,800

T2

G00 X0

G00 Z2

G74 Z-25 Q5.0 R4 F10

g00 x30

G00 Z50

(TOOL/GROOVE,0.2,0.2,40,5,1,1,90,0)

T3 S400

G00 X24

G00 Z-45

G75 R10

G75 X18 Z-45 P750 Q2000 F10

G00 X30

G00 Z-54

G75 R10

G75 X18 Z-54 P750 Q2000 F10

G00 X30

G00 Z50

M05

M09

M30

**Exp. 010:- Turning with negative side step, grooving or radius turning.**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S1200 M08

G00 X26

G00 Z2

G90 X25 Z-70 F50

X24.5

X24.0

G90 X23.5 Z-60 F50

X23.0

X22.5

X22.0

G00 X50

G00 Z50

(TOOL/GROOVE,0.2,0.2,50,4,.5,.5,90,0)

T3 S400

G00 X24

G00 Z-24

G75 R1.000

G75 X20 Z-46 P750 Q2000 F1.5

G00 X24

G00 Z-29

G75 X16 Z-30 P750 Q2000 F1.5

G00 X24

G00 Z-44

G75 X16 Z-46 P750 Q2000 F1.5

G00 X16

G00 Z-44

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.2 F20

N10 G01 X16

G01 Z-44

G01 Z-46

G03 X22 Z-50 R4

N20 G01 X24

G70 P10 Q20 F10

G00 X50

G00 Z50

(TOOL/STANDARD,15,75,.2,12,0)

T1 M05 M09 M30

**Exp. 011:- CW or CCW radius Turning with broad grooving.**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S800 M08

G00 X26

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F20

N10 G01 X10

G01 Z0

G01 Z-10

G03 X16 Z-14 R5

G02 X20 Z-19 R5

G01 Z-22

G01 X22

G01 Z-60

G01 X24

N20 G01 Z-70

G70 P10 Q20 F10

G00 X50

G00 Z50

(TOOL/GROOVE,0.2,0.2,50,4,.5,.5,90,0)

G00 X24

G00 Z-44

G01 X22 F50

G75 R500

G75 X16 Z-55 P500 Q200 F1.5

G00 X50

G00 Z50

(TOOL/STANDARD,15,75,.2,12,0)

T1 M05 M09 M30

**Exp. 012:- Multi tool or double operations.**

(STOCK/100,25.4,0,0)

(TOOL/STANDARD,15,75,.2,12,0)

T1 M03 S800 M08

G00 X26

G00 Z2

G71 U0.5 R1

G71 P10 Q20 U0.5 W0.5 F20

N10 G01 X18

G01 Z0

G01 Z-35

G01 X24

G01 Z-70

N20 G01 X25

G70 P10 Q20 F10

G00 X50

G00 Z50

(TOOL/GROOVE,0.2,0.2,50,4,.5,.5,90,0)

T3

G00 X25

G00 Z-59

G01 X24 F50

G75 R1.000

G75 X20 Z-60 P750 Q2000 F1.5

G00 X50

G00 Z50

(TOOL/THREAD,60,50,5,90)

T5

G00 X18

G00 Z2

G01 Z0 F20

G76 P001255 Q100 R10

G76 X15 Z-30 R0 P1200 Q100 F2

G00 X24

G00 Z-32.0

G01 Z-35.0 F20

G76 P001255 Q100 R10

G76 X20 Z-56 R 0P1800 Q100 F2.5

G00 X50

G00 Z50

(TOOL/DRILL,08,118,50)

T2 S600

G00 X0

G00 Z2

G74 R2

G74 X0 Z-30 Q2.0 F20

G00 Z100

(TOOL/DRILL,12,118,50)

T4 S400

G74 R2

G74 X0 Z-20 Q2.0 F20

G00 Z100

(TOOL/STANDARD,15,75,.2,12,0)

T1 M05

M09

M30