

#### **PREPARATORY FUNCTIONS**

| G00 | RAPID POSITIONING                 |
|-----|-----------------------------------|
| G01 | LINEAR INTERPOLATION              |
| G02 | CW CIRCULAR INTERPOLATION         |
| G03 | CCW CIRCULAR INTERPOLATION        |
| G70 | DIMENSION IN INCH                 |
| G71 | DIMENSION IN MM                   |
| G75 | RETURN TO HOME                    |
| G90 | ABSOLUTE DIMENSION                |
| G91 | INCREMENTAL DIMENSION             |
| G96 | CONSTANT SURFACE SPEED COMMAND    |
|     | (S-CUTTING SPEED, LIMS- MAX. RPM) |
| G97 | SPINDLE SPEED COMMAND (S- RPM)    |
|     |                                   |

#### **ADDRESS CHARACTERS**

| N  | SEQUENCE OR BLOCK NUMBER |
|----|--------------------------|
| Т  | TOOL SELECTION           |
| D  | OFFSET PAGE NUMBER       |
| S  | SPINDLE SPEED IN RPM     |
| F  | FEED IN mm/rev           |
| CR | RADIUS OF ARC            |
| R  | R PARAMETERS (VARIABLES) |

## <u>CYCLE</u>

| CYCLE95 | STOCK REMOVAL |
|---------|---------------|

#### **MISCELLANEOUS FUNCTIONS**

| M00 | PROGRAM STOP               |
|-----|----------------------------|
| M01 | OPTIONAL STOP              |
| M02 | PROGRAM END WITH OUT RESET |
| M03 | SPINDLE ON CW              |
| M04 | SPINDLE ON CCW             |
| M05 | SPINDLE STOP               |
| M06 | TOOL CHANGE                |
| M08 | COOLANT ON                 |
| M09 | COOLANT OFF                |
| M30 | PROGRAM END WITH RESET     |

### **FUNCTIONS**

| IF   | CONDITION (TRUE OR FAULT) |
|------|---------------------------|
| GOTO | JUMP MARKER               |
| =    | ASSIGNMENT                |
| ==   | EQUAL                     |
| >    | GREATER THAN              |
| <    | LESS THAN                 |
| >=   | GREATER THAN OR EQUAL     |
| <=   | LESS THAN OR EQUAL        |

# **PROGRAM**

```
;***STOPPER***
N10
G75 X0 Z0
T4 D1; SLEEVE (STOPPER)
G00 X0 Z0
M00
G75 X0 Z0
M01
;***FACING***
N20
G75 X0 Z0
T1 D1; PCLNR 2020 K12
G96 S200 LIMS=1500 M03
M08
G00 X22 Z2
G01 X22 Z0.25 F0.1
G01 X-2 Z0.25
G00 X22 Z2
G01 X22 Z0 F0.1
G01 X-2 Z0
G00 X22 Z2
G75 X0 Z0
M05
M09
M01
;***CONTOURING***
N30
G75 X0 Z0
T7 D1; MVJNR 2020 K16
```

```
G96 S200 LIMS=1500 M03
M08
G00 X22 Z2
CYCLE95( "AB:BC", 1.00000, 0.20000, 0.40000, 0.00000, 0.15000, 0.10000, 0.05000, 9, , ,)
G00 X22 Z2
G75 X0 Z0
M05
M09
M01
;***PARTING***
N40
G75 X0 Z0
T3D1; CFIR 2020 K06
G97 M03 S1200
80M
G00 X22 Z2
G00 X22 Z-38
R1=20
N100
G01 X=R1 Z-38 F0.05
G01 X=R1+0.5 Z-38
R1=R1-2
IF R1>=-1 GOTO N100
IF R1<-1 GOTO N200
N200
G00 X22 Z-38
G00 X22 Z2
G75 X0 Z0
M09
M05
M30
;***CONTOUR***
AB:
```

G01 X0 Z0 F0.1

G01 X12 Z0

G01 X12 Z-5

G01 X8 Z-7

G01 X8 Z-9

G02 X12 Z-23 CR=25

G03 X13 Z-25 CR=1.5

G02 X14 Z-28 CR=2

G03 X16 Z-32 CR=3

G01 X18 Z-33

G01 X18 Z-35

G01 X18 Z-38

G01 X20 Z-38

BC: