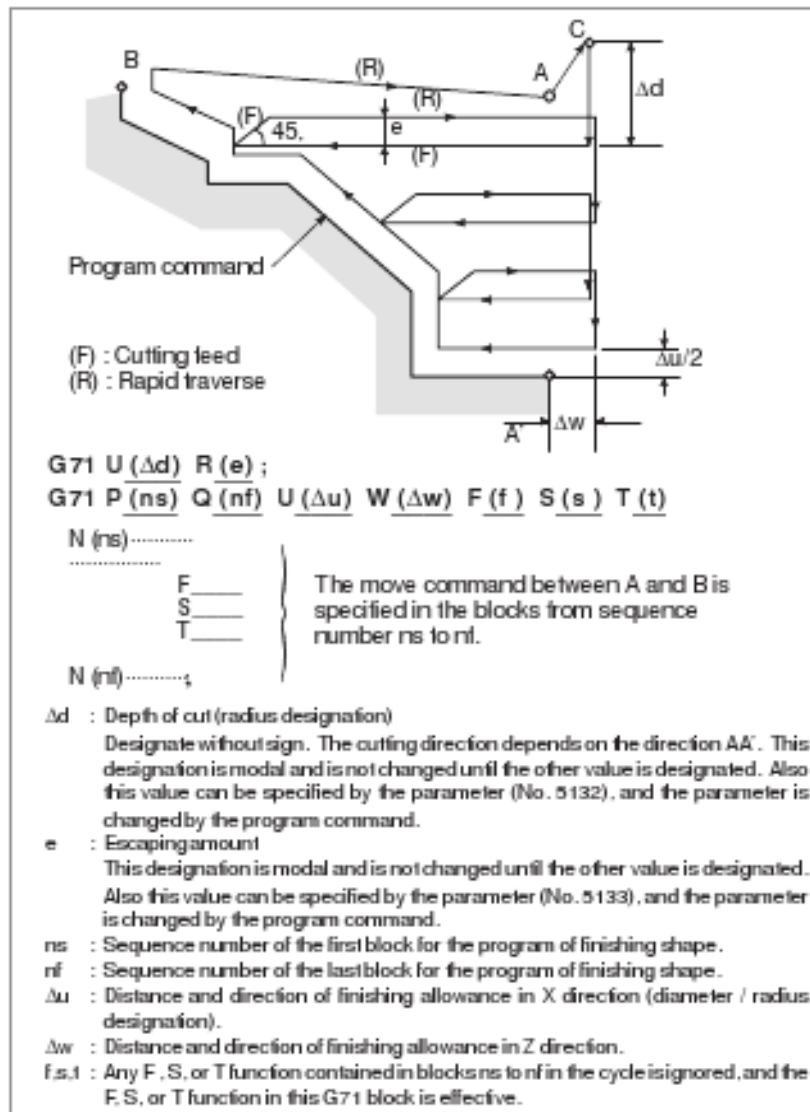
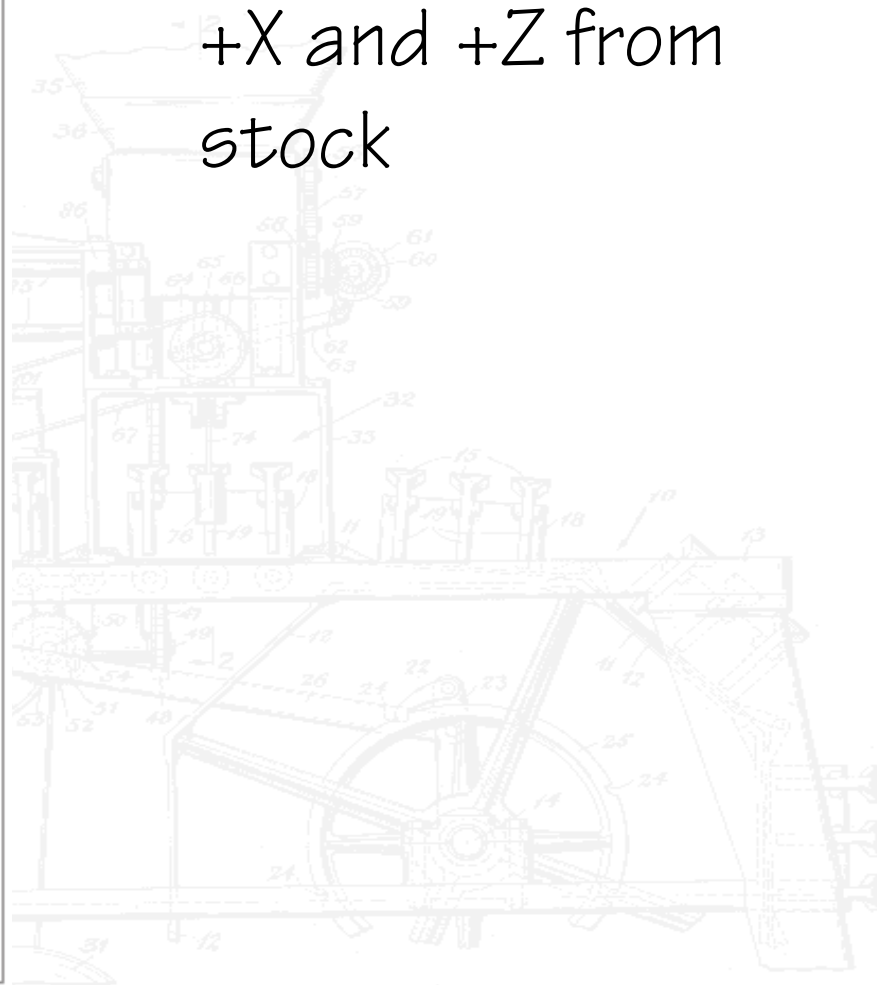


ROUGH TURNING CYCLE - G71



Note that point C is
+X and +Z from
stock



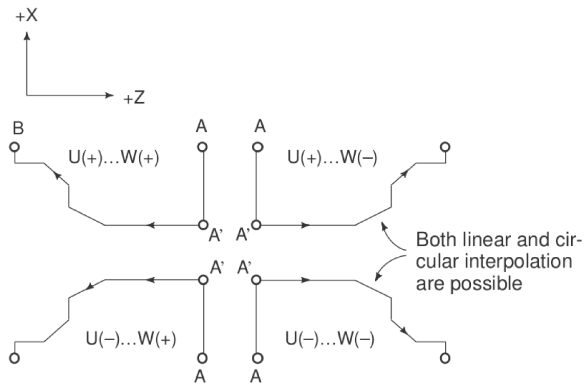
G71 ROUGH TURNING CYCLE

NOTE

- 1 While both Δd and Δu , are specified by address U, the meanings of them are determined by the presence of addresses P and Q.
- 2 The cycle machining is performed by G71 command with P and Q specification.
F, S, and T functions which are specified in the move command between points A and B are ineffective and those specified in G71 block or the previous block are effective.

When constant surface speed control is enabled, G96 or G97 command specified in the move command between points A and B are ineffective, and that specified in G71 block or the previous block is effective.

The following four cutting patterns are considered. All of these cutting cycles are made paralleled to Z axis and the sign of Δu and Δw are as follows:



The tool path between A and A' is specified in the block with sequence number "ns" including G00 or G01, and in this block, a move command in the Z axis cannot be specified. The tool path between A' and B must be steadily increasing or decreasing pattern in both X and Z axis. When the tool path between A and A' is programmed by G00/G01, cutting along AA' is performed in G00/G01 mode respectively.

- 3 The subprogram cannot be called from the block between sequence number "ns" and "nf".

G71 ROUGH TURNING CYCLE

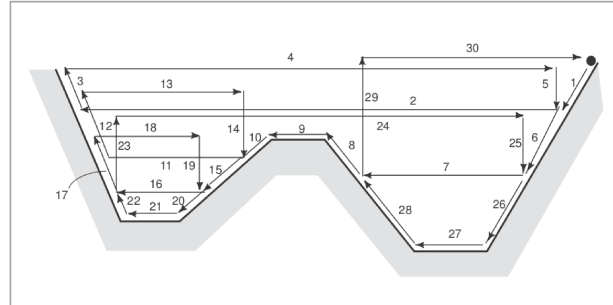


Fig. 13.2.1 (f) Cutting path in stock removal in facing

The offset of the tool tip radius is not added to finishing allowances Δu and Δw . In turning, the offset of the tool tip radius is assumed to be zero.

$W=0$ must be specified; otherwise, the tool tip may cut into one wall side. For the first block of a repetitive portion, two axes X(U) and Z(W) must be specified. When Z motion is not performed, W0 is also specified.

When only one axis is specified in the first block of a repetitive portion

-- Type I

When two axes are specified in the first block of a repetitive portion

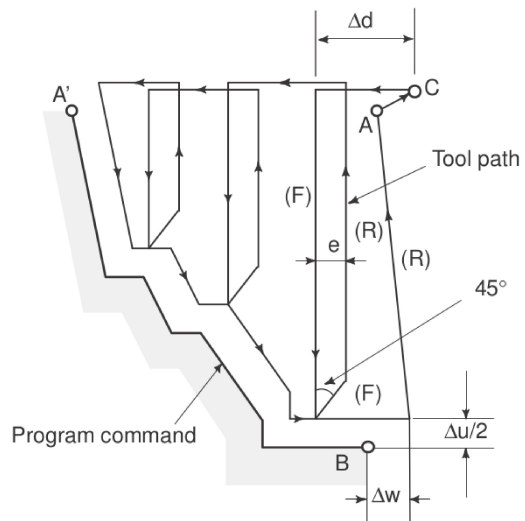
-- Type II

When the first block does not include Z motion and type II is to be used, W0 must be specified.

(Example)

TYPEI	TYPEII
G71 V10.0 R5.0;	G71 V10.0 R5.0;
G71 P100 Q200.....;	G71 P100 Q200.....;
N100X (U)___;	N100X (U)___ Z(W)___;
:	:
:	:
N200.....;	N200.....;

G72 ROUGH FACING



G72 W(Δd) R(e) ;

G72 P(ns) Q(nf) U(Δu) W(Δw) F(f) S(s) T(t) ;

The meanings of Δd , e , ns , nf , Δu , Δw , f , s , and t are the same as those in G71.

