

## 12. RUP MODE – MANUAL PRE-SELECTION OF THE BLOCK

It is possible to store into the system memory complete information in the scope of one program block with the possibility to run the whole entered information by means of the push-button, addresses and digits.

RUP mode selection procedure:

Press down the RUP push-button in the main menu. The format window is divided into two windows (if other display format is not memorized). The co-ordinates with distance are appeared in the left window, the preparing and active block are in the right window. The preparing block is empty and it is ready to enter the block. By pressing down of any arbitrary address, this address is appeared in the emphasized window and its numeric value may be entered. If numeric value is not set, any other arbitrary address may be pressed down. The active block indicated all functions which are valid in this given moment. Functions programmed in the previous block are emphasized. Functions which are mentioned in the active block have not to be programmed in the RUP block. In the relevant figure, the function G01 had not to be programmed in the RUP block because it is valid.

The screenshot displays the RUP mode interface. At the top, there is a status bar with icons for various functions and a mode indicator 'Režim' with a hand icon. Below this, the main area is divided into two panels. The left panel shows coordinate input for X, Y, Z, and W, each with a '+' sign, a value of '0,000', and a 'Distance' label. The right panel shows the 'Přípravný blok "RB" (nové funkce)' (Preparing block 'RB' (new functions)) and the 'Aktivní blok "RA" (všechny funkce)' (Active block 'RA' (all functions)). The 'Přípravný blok' contains the code 'G X+200,000 F+0,500 S250 G1 M41 M3'. The 'Aktivní blok' contains a list of functions: '&0 G1 G17 G98 G40 G53 G94 G70 G80 G90 M5 M40 M36 M9 M53 M48 M99'. Below these panels, there is a table with the header 'STAV zadaný' (Status entered) and 'skutečný' (Actual). The table has two rows: 'F' with values '0,000' and '0,000', and 'S' with values '0' and '0,000'. At the bottom, there is a row of buttons: 'AUT', 'ruční' (manual), 'RUP', 'programy', 'tabulky' (tables), and 'systém'.

STAV	zadaný	skutečný
F	0,000	0,000
S	0	0,000

Režim – mode

nové funkce = new functions

všechny funkce = all functions

skutečný = true

programy = programs

systém = system

přípravný blok = preparing block

aktivní blok = active block

stav zadaný = status entered

ruční = manual

tabulky = tables

The procedure of entry and correction of already entered value may be explained by the following example:

Enter the block to program the linear feed in the X co-ordinate with the entered velocity (F) and engagement of the first transmission stage of the spindle (M41) and then the rotation of the spindle (S and M3).

This block will be entered as follows: X100 F500 S250 M41 M3 G01

*Note:*

*No block No. will be entered in the RUP block. If done so, it has not meaning.*

Upon entry of the above mentioned block, press down these push-buttons on the system panel (the individual pressing down steps are separated by commas, 2<sup>nd</sup> is one push-button).

X, 2, 0, 0, 2<sup>nd</sup>, F, 5, 0, 0, 2<sup>nd</sup>, S, 2, 5, 0, 2<sup>nd</sup>, M, 4, 2, ↓, 3, 2<sup>nd</sup>, G, 1

*Note:*

*Independent push-buttons for the G.N.S.T. are available on some panel types so that the 2<sup>nd</sup> push button is not to be pressed for them.*

If present several functions G or M in the block, so when selecting the second and further ones, the ↓ push-button shall be pressed down which offers empty G or M to enter a value.

The ↓ push-button is used for listing in an entered block. The listing procedure may start from the entered address up to the RUP block end which is marked by asterisk (information data only). Further pressing down causes the skip to the RUP block starting point which is marked as N0 (again, information data only without any practical meaning). Actual item (address) is located in an emphasized frame. This address may be cancelled by the DEL push-button. If required to correct an erroneously entered address it is not necessary to cancel it by the DEL push-button but it is enough to press down the relevant address again and its original value will be appeared in the actual item. Pressing down any arbitrary number, the old value will be overwritten by the new one.

The address indicated in the emphasized window is indicated in the block with other addresses too.

For completing purposes the parameter entry and entry of parametrically programmed address is mentioned but it is not important in the RUP mode. The entry of R10 = 30.2. shall be performed by : 2<sup>nd</sup>, R, 1, 0, =, 3, 0, ., 2.

After pressing down of the = push-button, entered 10 disappears to allow the entry of 30.3. Entering other address or pressing down the ↓ push-button this entry will be formatted into the format R10=30.200.

Parametric address entry is performed by the following entry: X,2,0,=.

After pressing down of the further address or the ↓ push-button this entry will be normalized to XR20 and it means that the X axis will be moved to the measure which is in the 20. parameter.

To run the entered block automatically, press down the START push-button. If failed to enter e.g. the F velocity, the blocks will start but the relevant co-ordinate will not run because no velocity was entered. The lamp SYSTEM RUN, FUNCTIONS NOT FULFILLED and INPOS will be ON. Pressing down the STOP push-button the lamps will get OFF and the lamp FUNCTIONS NOT FULFILLED remains ON. In this stage, missing velocity may be programmed and the block is to be started again.

After correct block execution, all lamps will get OFF and the format of the preparing blocks will be cancelled. If interrupted the block by STOP and it shall not be continued, the CENTRAL CANCELLATION mode shall be selected the START push-button is to be pressed down. The CENTRAL CANCELLATION mode shall be used when the entered block has not to be run.

*Note:*

*After STOP of the RUP mode in progress it is possible to re-program other functions or travels. After pressing down the START push-button, also the re-programmed functions will be run too.*

*After pressing down of the MAN push-button, also auxiliary manual travels in the RUP mode may be used but without any big practical meaning.*