

# SERVO ROLLER POSITIONER



-  Extreme flexibility of output motion.
-  High dynamic performance without any clearance.
-  High precision.
-  Prepared for servo motor with user-programmable motion.
-  Mounting in any position.
-  Large central through hole.
-  Compact and light shape with all machined surfaces.
-  Rigid output turret with flange connection and pair of ball bearings.



**COLOMBO FILIPPETTI**  
COLLABORATIVE ENGINEERING

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*The units of measurement comply with the SI international metric system*

*The general manufacturing tolerances are according to UNI - ISO 2768-1 UNI EN 22768-1*

*Illustrations and drawings according to UNI 3970 (ISO 128-82)*

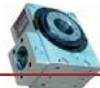
*The method of representation of conventional drawings*



*Colombo Filippetti Spa reserves the right to make useful modifications to improve its products at any time.*

*The values contained in this catalogue are therefore not binding.*

*This catalogue voids and replaces the previous ones.*



**SRP63 - SRP100 - SRP150**

PAG



*Main parts*

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**SRP63**

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**SRP100**

Technical information

6 Overall dimensions

**SRP150**

Technical information

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**SRP63 - SRP100 - SRP150**

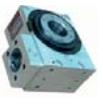


*Main parts*

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SRP63 SRP100 SRP150

## SERVO ROLLER POSITIONER

### General information

SERVO ROLLER POSITIONERS are rotary roller positioners with globoidal cam with constant speed and zero clearance.

The globoidal cam moves a roller turret that mount needle rollers and are mutually preloaded to ensure zero clearance regardless of cam position.

The tables are available in 3 sizes: SRP63, SRP100, SRP150.



**Fig. 1** Servo Roller Positioner

The preload system, zero clearance and the needle rollers guarantee a smooth movement throughout the operating cycle, high rigidity and repeatability of positioning, high performances accompanied by a long life and extremely low maintenance.

The servo motor keyed on the input shaft of the cam and fixed directly on the side of the casing allows to freely program the table so that the user can have total control of the movement, of the speed, of the acceleration of the end turret as well as all the dynamic and kinematics parameters allowed by the selected drive.

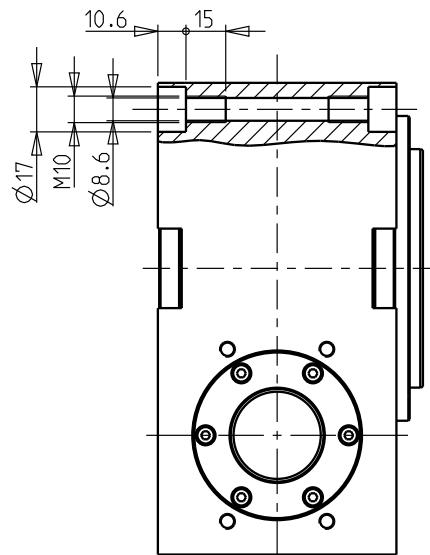
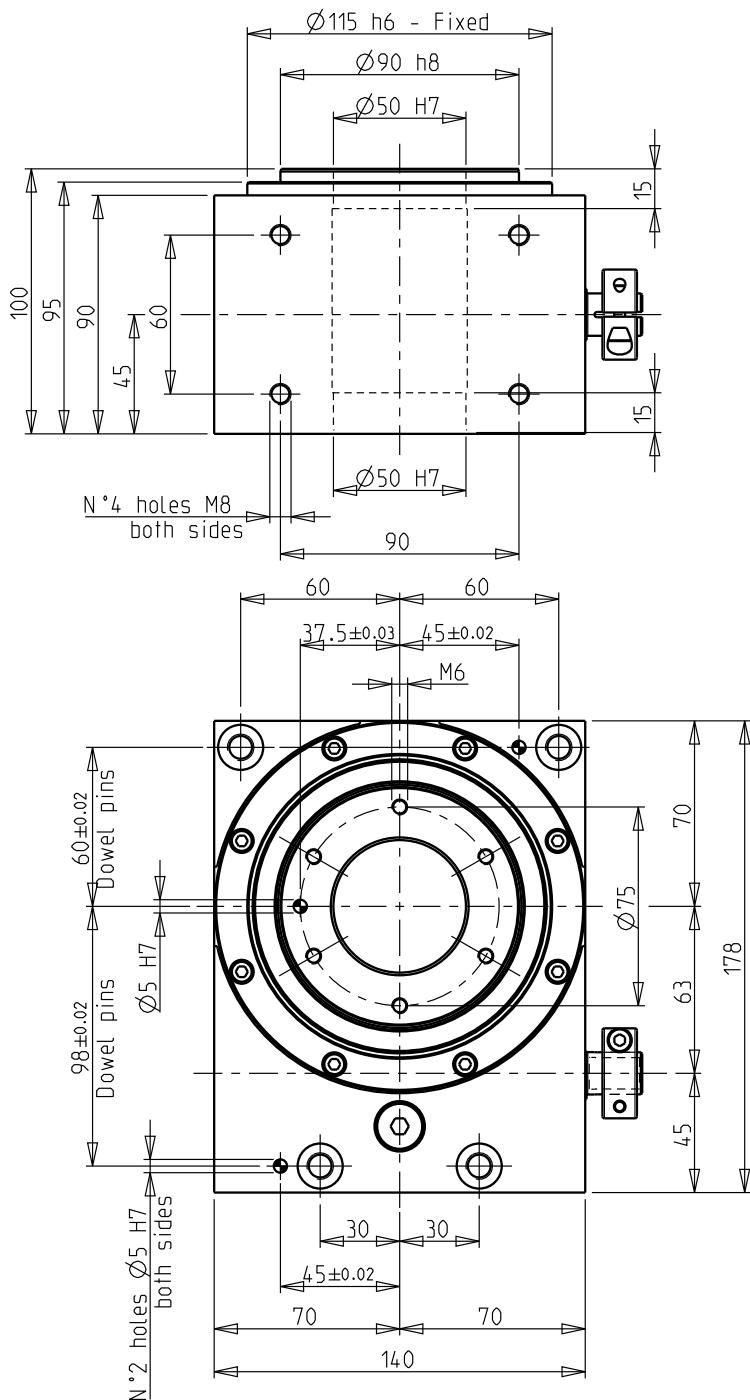
The SERVO ROLLER POSITIONER is applied in all areas of automation that require a high degree of flexibility due to frequent format or production changes, high dynamic performance with rapid and precise positioning that remains unchanged over time.

The large through hole in the output turret allows easy passage of cables and pipes. It also allows the passage of trees and other equipment, allowing for ample design freedom.





## SRP63 - OVERALL DIMENSIONS



SRP63

Fig. 2 Overall dimensions SRP63.

*i* NOTES

- Reversing the direction of rotation of the input shaft reverses the direction of rotation of the output turret.
- Relationship between the directions of rotation between input and output as indicated by the arrows.
- The 2 holes for H7 plug refer to the hole of the output turret.

## CHARACTERISTICS

## SRP63

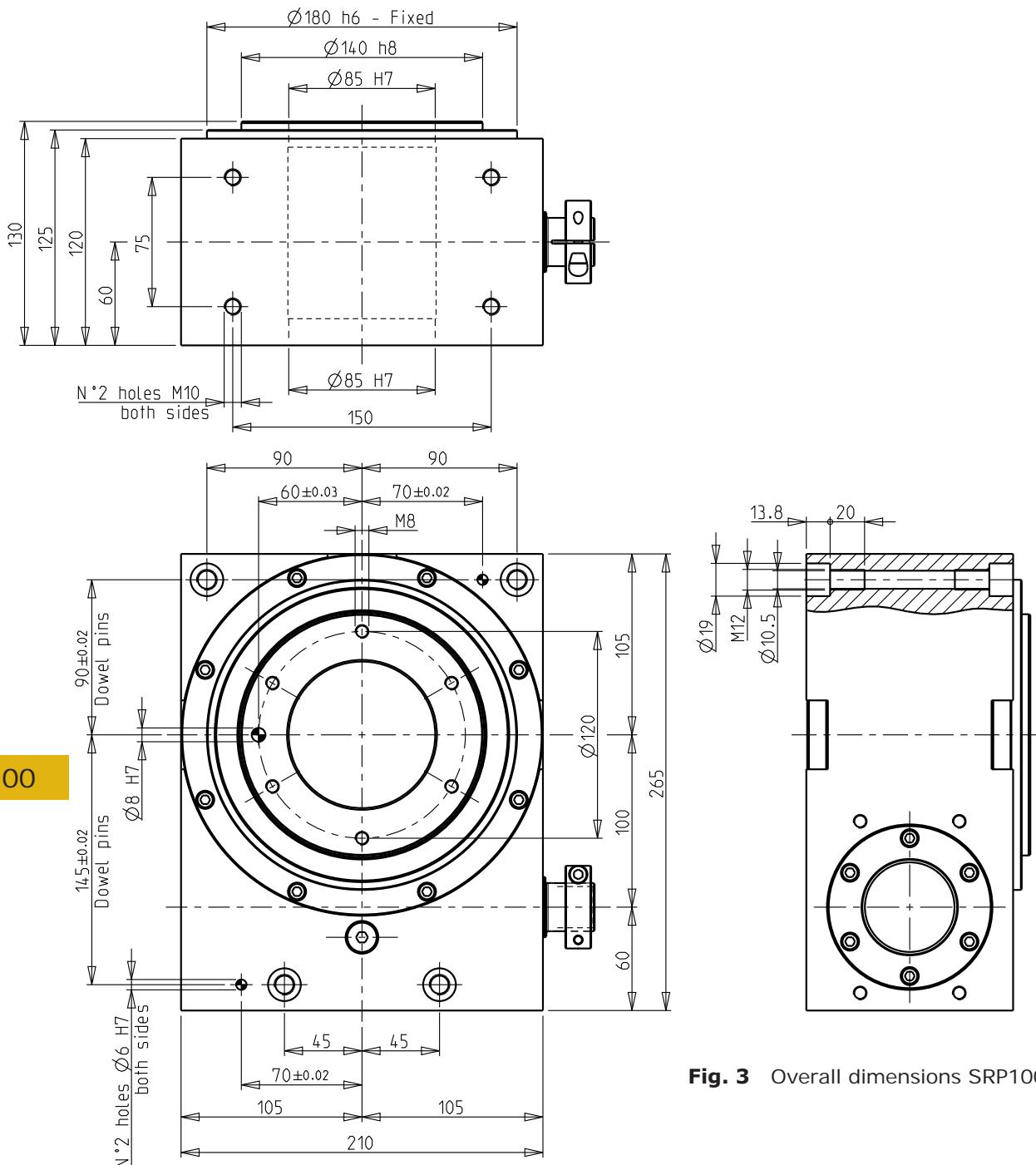
Reduction ratio	1:18
Maximum torque	105 Nm
Maximum input speed	3000 rpm
Output turret concentricity	0,01 mm
Output turret flatness	0,01 mm

Tab. 1 Characteristics SRP63.



## SRP100

### SRP100 - OVERALL DIMENSIONS



**Fig. 3** Overall dimensions SRP100.

### NOTES

- Reversing the direction of rotation of the input shaft reverses the direction of rotation of the output turret.
- Relationship between the directions of rotation between input and output as indicated by the arrows.
- The 2 holes for H7 plug refer to the hole of the output turret.

### CHARACTERISTICS

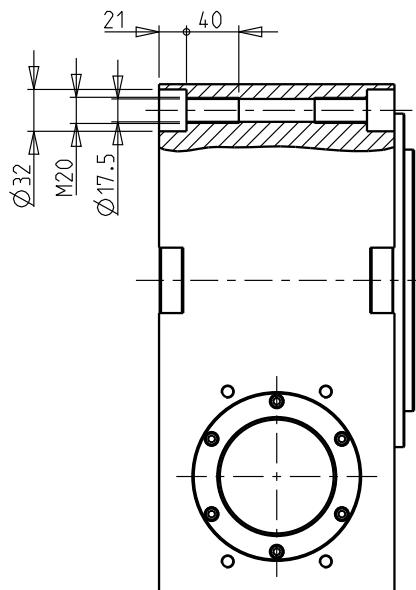
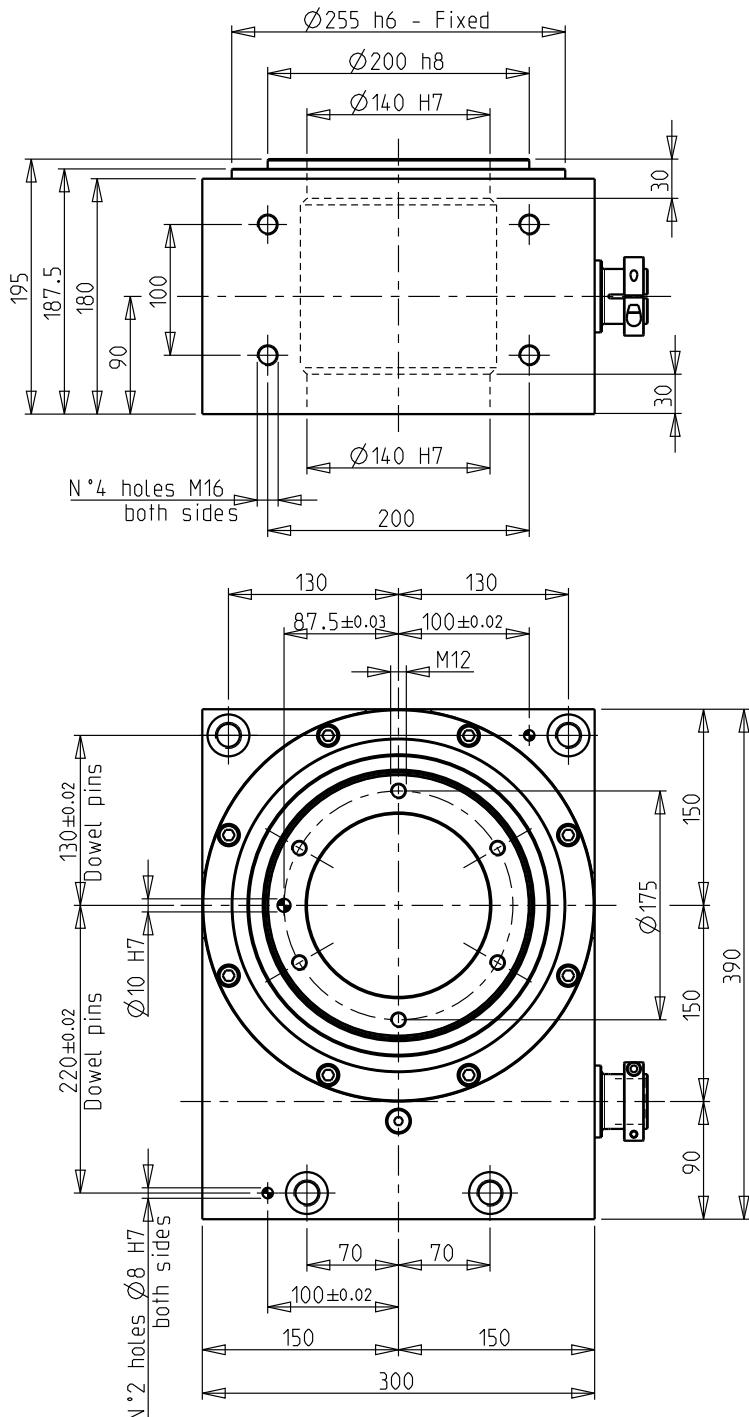
#### SRP100

Reduction ratio	1:20
Maximum torque	400 Nm
Maximum input speed	3000 rpm
Output turret concentricity	0,01 mm
Output turret flatness	0,01 mm

**Tab. 2** Characteristics SRP100.



## SRP150 - OVERALL DIMENSIONS



SRP150

**Fig. 4** Overall dimensions SRP150.

## NOTES

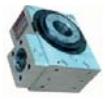
- Reversing the direction of rotation of the input shaft reverses the direction of rotation of the output turret.
- Relationship between the directions of rotation between input and output as indicated by the arrows.
- The 2 holes for H7 plug refer to the hole of the output turret.

## CHARACTERISTICS

### SRP150

Reduction ratio	1:20
Maximum torque	1280 Nm
Maximum input speed	3000 rpm
Output turret concentricity	0,01 mm
Output turret flatness	0,01 mm

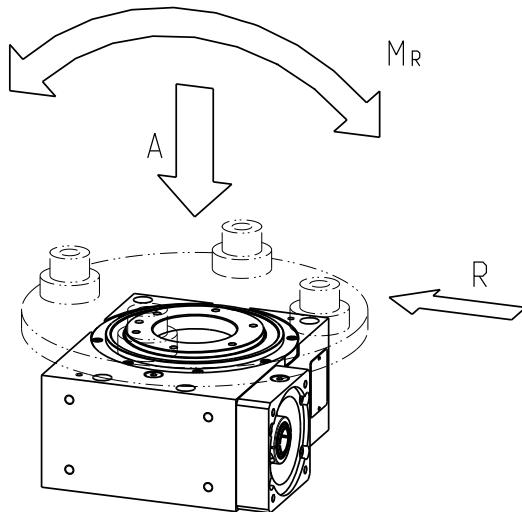
**Tab. 3** Characteristics SRP150.



SRP63 SRP100 SRP150

## OUTPUT TURRET LOAD CAPACITY

The load capacity indicated in the table and represented in the graphs below refer to the assembly of the table in position V5 and represent the maximum values for each type of load applied individually.



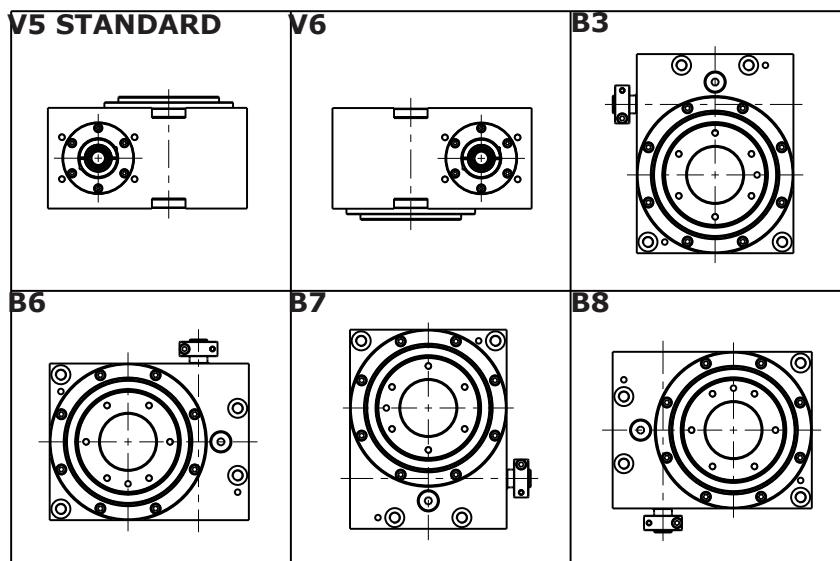
**Fig. 29** Load diagram.

## LUBRICATION

Lubrication of the tables is "long-life" type with ISO VG150 mineral oil. The SERVO ROLLER POSITIONERS are supplied complete with lubricant in a suitable quantity. The output turret is already factory lubricated for assembly in position V5, so no lubrication is required. The lubrication of the reduction units, gearmotors, variable speed drives, etc. is independent and the indications of the manufacturers of the individual products apply.

## ASSEMBLY POSITIONS OF THE SERVO ROLLER POSITIONER

The SERVO ROLLER POSITIONER can be mounted in all positions, being long-life lubricated and provided the proper amount of oil.



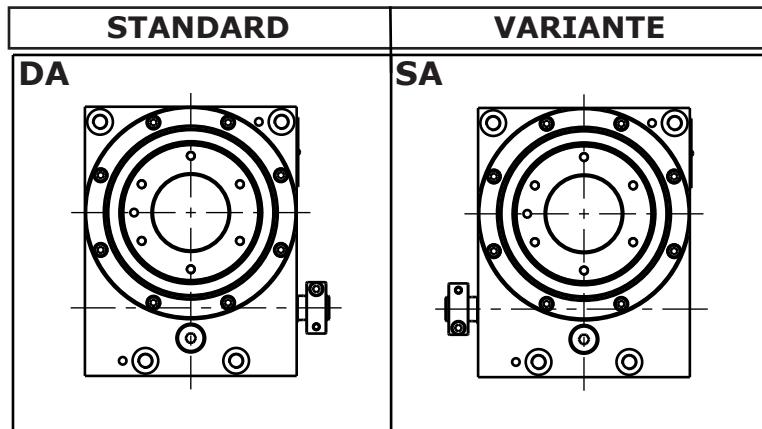
**Fig. 5** Mounting positions.

Unless otherwise specified, SERVO ROLLER POSITIONERS are supplied for the standard V5 mounting position.





## INPUT SHAFT PROTRUSION



**Fig. 6** Input shaft protrusions.

Unless otherwise stated, SERVO ROLLER POSITIONERS are supplied with the shaft extension at the DA position.

## ORDER DESIGNATION

The SERVO ROLLER POSITIONER designation code is created following a alphanumeric classesfication and is composed according to the following scheme.

Please refer to it when ordering to avoid errors.

**SRP**

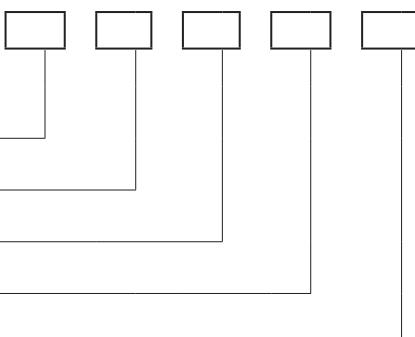
Size (SRP63 - SRP100 - SRP150)

Reduction ratio (Pag. 5 - 7 Tab. 1 - 3)

Mounting position (V5, V6, ..., B8 - Pag. 23 - Fig. 31)

Input shaft position (DA, SA - Pag. 9 - Fig. 6)

Motor pre-arrangement



Describe the desired additional features.

### Coding example:

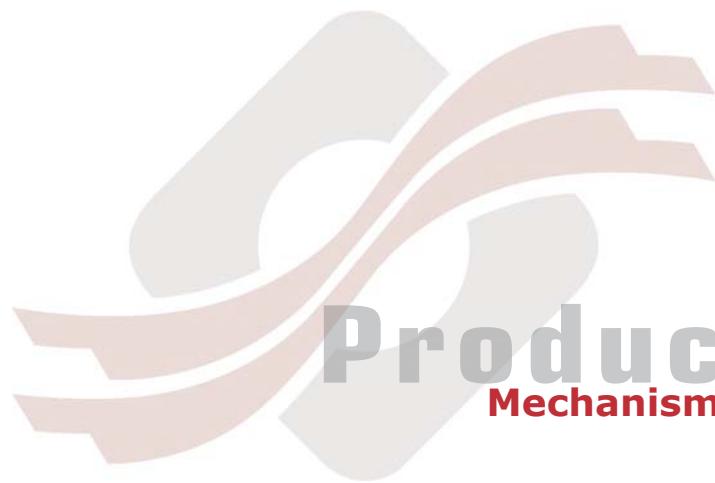
SRP100 table, transmission ratio 1:20, mounted in position V5, input hollow shaft on the right side and designed for motor to specify.

**SRP100 - 16 - V5 - DA - "prepared for motor ..."**



**SRP63 SRP100 SRP150**





# [to create]

in movement with the times

## Products

### Mechanisms and special products



Group with double spherical cam for mechanical automation



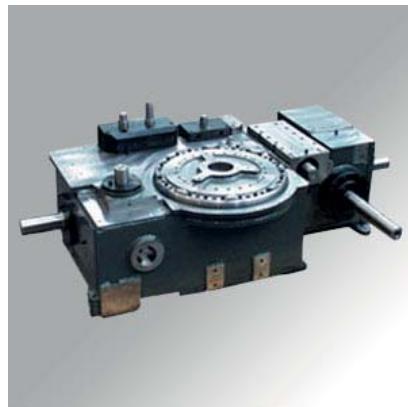
Combination of a cam with a flat profile and a cam with globoidal profile



Cylindrical cam



Globoidal cam mechanism with four synchronized output movements



Mechanism with different types of cams that produce seven synchronized and intermittent synchronized movements at output



Parallel axis mechanism and flat cams



Flat cam with interlocking profiles

... the culture of precision