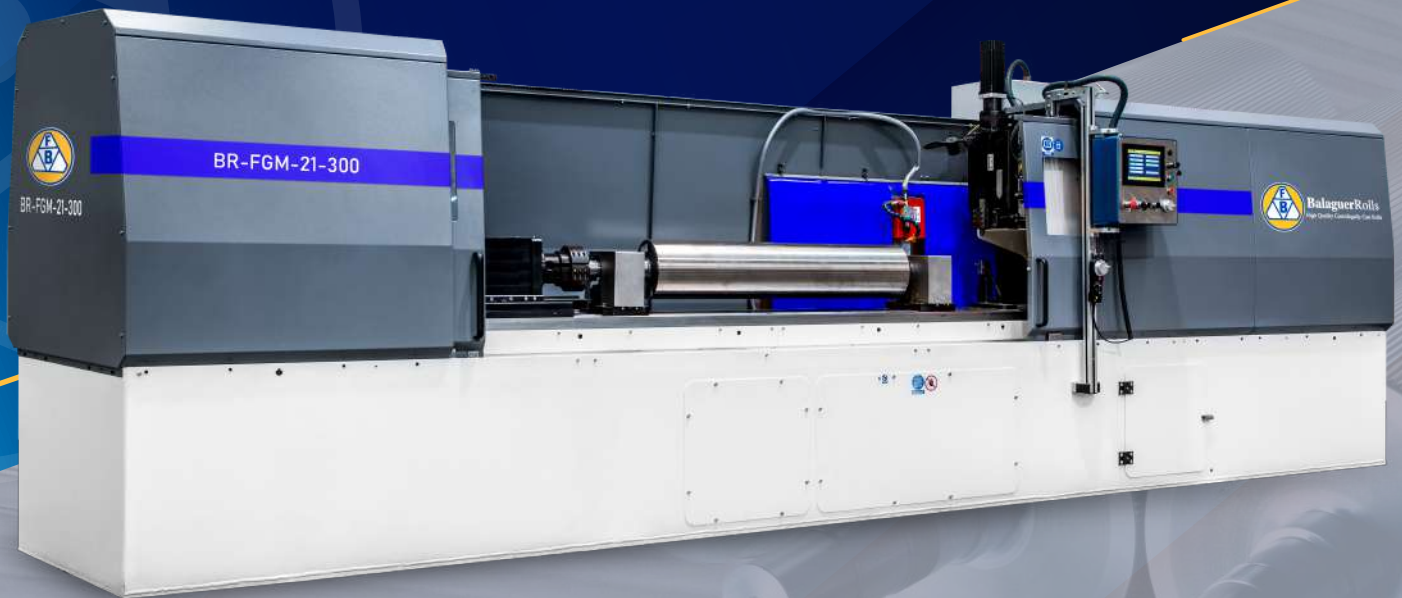


# **BALAGUER ROLLS**

## **ROLL FLUTING AND GRINDING**

# **BR-FGM-21-300**



**Highest speed and precision**  
Very solid tool holder.



**Multi-tool system**  
Enables to work with single and multi tool system



**Open steady-rest**  
System designed for a fast roll change and to save time



**Highest quality components**  
Ensamblad with Siemens, Bosch-Rexroth and B&R components.



**Remote assistance conection**  
Remote assistance for problem solving



**Integral cover available**  
Different protections available including integral cover with CE conformity



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## BR-FGM-21-300 MAIN FEATURES

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- Fluting speed up to 40m/minute
- Grinding wheel speed up to 1400 rpm
- Returning tool speeds up to 40m/minute
- Programmable grinding, fluting, threading, chamfering and facing cycles
- Automatic cambering options (flat, round camber, taper/roof shape)
- High accuracy
- Multitool and bipoint tool optional
- Optical Fluting Test –optional
- Production report
- Compact designed
- High quality components: Siemens, Bosch-Rexroth, B&R
- Easy to operate and clean.
- Special open steady rest design for a fast roll change.
- Maximum fluting roll weight 1.500 kg

## CONSTRUCTION

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Sturdy monolithic electrovelded steel base frame, grinding head and tool tower, with precision machining after stress relief heat treatment.

Linear precision recirculating ball guides, high precision gear box.  
Large diameter high precision ball screws spindles, with preloaded nuts, Z axis spindle moves with the roll table, avoiding need and wear of support bearings.

Grinding wheel spindle with high precision bearings, life-long lubricated.

Includes water cooling sistem with tank, pump, and magnet filter.

Full automatic oil pump lubrication system for linear guides (Optional)

## CONTROL SYSTEM

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The control system is a last generation numerical control, composed by:

- Safety control module
- PLC
- Brand B&R
- Drivers for the servomotors for the different 5 axis.

User friendly HMI touchpanel with 10,4" - colour screen and with a special Windows based software developed by Balaguer Rolls. Simple menus, user friendly, very easy to programm.

Includes an automatic flute dimension calculation and automatic cycles timeestimation.

Production data recording and exportable in excel file for productivity control and analysis.

Handwheel for fine adjustment during machine set up and corrections during automatic cycle.

Remote assistance connection modem.



## LANGUAGE OPTIONS

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By default are included all menus in English, Spanish, German and French, but any other local language can be added.

All electrical components are from well known brands, like Siemens and B&R, with service and spare parts all over the world.

## INCLUDED ACCESSORIES

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- Balancing stand
- Can cooling liquid Rhenus 750 FS 10 l.
- 4 bolts M30
- Levelling pads
- Manual grease pump
- Chemical anchors
- 1 shaft locking bushings for shaft clamping
- Anchoring threaded rods and screws
- Tool box, containing:
  - Oil can
  - Set of 5 hard metal single point fluting tools not grinded.
  - Hand tools
    - Allen keys
    - Fix keys

## OPTIONAL CONSUMABLES

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- Grinding wheel white corundum  $\varnothing 500 \times 80 \times \varnothing 203,2$
- Grinding wheel high precision  $\varnothing 500 \times 80 \times \varnothing 203,2$
- Grinding wheel white corundum  $\varnothing 500 \times 60 \times \varnothing 203,2$
- Grinding wheel high precision  $\varnothing 500 \times 60 \times \varnothing 203,2$
- Hard metal single point fluting tool
- Hard metal multiple point fluting tool

## FULL AUTOMATIC CYCLES

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- Cylindrical flat grinding
  - Round camber grinding
  - Roof shape or taper cambering
  - Fluting
  - Chamfering
  - Facing
  - Threading
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- Grease tube
  - 1 Centesimal dial gauge with magnet base
  - 1 Grinding wheel extraction nut
  - 1 Hook for lift grinding wheel
  - 2 Open steady rest
  - Work lamp
  - 1 Grinding wheel stone (mounted on the machine)
  - 1 Grinding wheel diamond dresser
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- Diamond dressing tool
  - Grinding water cooling liquid 18 Kg can
  - Grinding water cooling liquid 190 Kg drum
  - Grease for lubrication SKF 400 gr
  - Grease for automatic lubrication APEX G04 400 ml
  - Oil for steady rest
  - Full automatic oil pump lubrication system
  - Drag (shaft lock) bushing big
  - Drag (shaft lock) bushing small
  - Multitool Holder




**SPECIFICATION**
**RANGE**

Roll diamter (mm)	Fluting 180 to 310 Grinding 200 to 310
Roll lenght (mm)	10 to 1500
Shaftdiameter (mm)	40 to 80
Maximum roll weight (kg)	1500
Maximum fluting speed (m/min)	40
Maximum return speed (m/min)	40
Max Grinding Wheel speed (rpm)	20 to 1.400
Max Grinding Wheel speed (m/s)	0,3 to 25
Max roll turning speed while grinding (rpm)	5 to 80
Grinding Wheel diameter (mm)	335 to 500
Grinding Wheel width (mm)	40 to 80
Grinding wheel motor power (kW)	7,5
Roll turning motor power X (kW)	2,4
Tool position motor power Y (kW)	0,8
Roll table motor power Z (kW)	4,7
Grinding wheel position motor power A (kW)	0,8
Cooling fluid pump power (kW)	1
Total installedpower (kW)	22
Machine lenght (mm)	6.326
Machine width (mm)	1.763
Machine height (mm)	2.137
Machine weight (kg)	7.300
Power supply tension (Volt AC)	Standard three phase 360 to 440 VAC, but can be adapted to anyone
Powesupplyfrecuency (Hz)	50 to 60

