

STUDER *easyLoad NC*

for external and universal cylindrical grinding machines

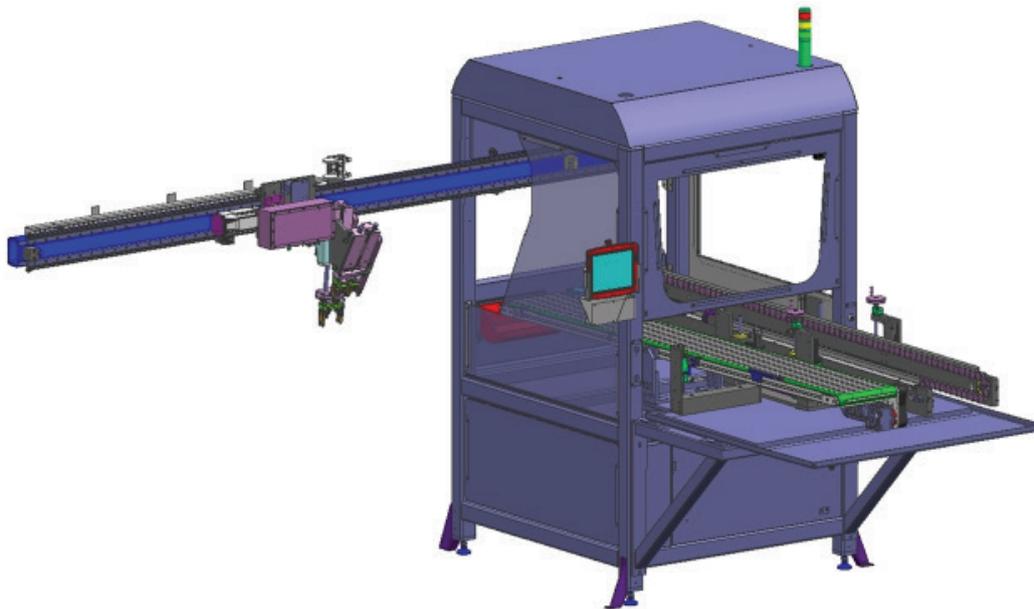
For machine types S21, S31, S33, S22 and S41 a loader solution is offered on the basis of a portal loader system with V-gripper. The loader system is suitable for shaft and chuck components with the following standard values:

- Part length 20 to 300 mm
- Grip diameter from 4 to 30 mm (max. interfering contour - dia. 50 mm)

It therefore covers the majority of the spectrum of parts produced on these machines.

Differing workpiece dimensions are possible, but require clarification.

In the basic version the parts are supplied via a standardized, adjustable synchronized conveyor. The housing for the base module, which has been adapted to suit the machine design, enables safe and clean operation of the system.



Machine types:	S21, S31, S33, S22, S41
Spectrum of parts:	Shaft and chuck components
Autonomy:	50 workpieces with max. diameter 30 mm (1.2")
Workpiece dimensions:	max. part length 300 mm (11.8") / min. part length 20 mm (0.8") max. grip - dia. 30 mm (1.2") / min. grip - dia. 4 mm (0.16") max. interfering contour - dia. 50 mm (2") max. part weight 5 kg (11 lbs)
Workpiece change time:	5 - 8 seconds (depending on clamping devices)
Workpiece supply time:	10 - 12 seconds
Control unit:	1 B&R axis controller with manual control unit 10" touch screen
Interface:	B3 Profibus loader interface

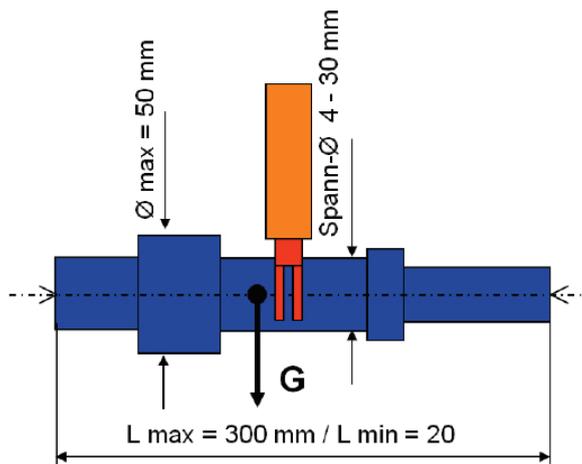
Structure and equipment: Base frame with casing and set-up door, portal module with 1 carriage, NC-axis, two gripper units in V-arrangement with two pneumatic parallel grippers. Peripheral equipment including synchronized chain conveyor with V-block for rough parts, adjustable to different part sizes, forward and reverse indexing and a synchronized conveyor for finished parts. SPC rack on finished parts conveyor NIO in reject flap (at rear of handling system)

Installation space: approx. 1200 x 2500 mm (47" x 98")

The following options / accessories are possible on the easyLoad NC, but require clarification:

- Pallets 300 x 400 mm (autonomy 3 pallets or according to clarification)
- Workpiece capacity dependent on workpiece geometry
- Feed handling with gripper unit according to requirement
- SPC / NiO extraction depending on configuration
- Pre- and / or post-process station
- Calibrated parts placement
- Turning station (part position not relevant)
- Part detection / alignment station
- Further options according to customer requirement and clarification

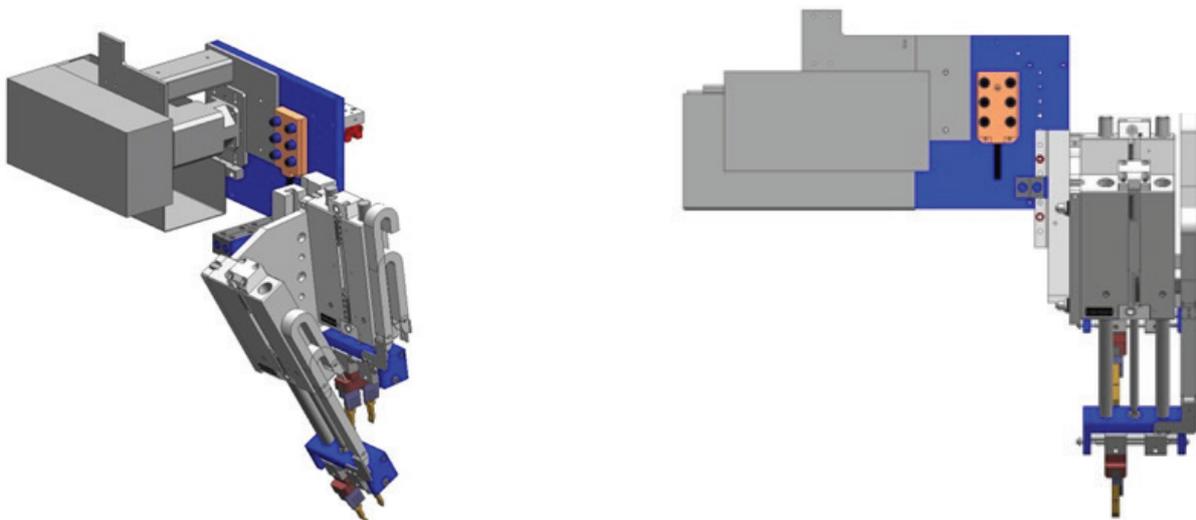
Part geometry



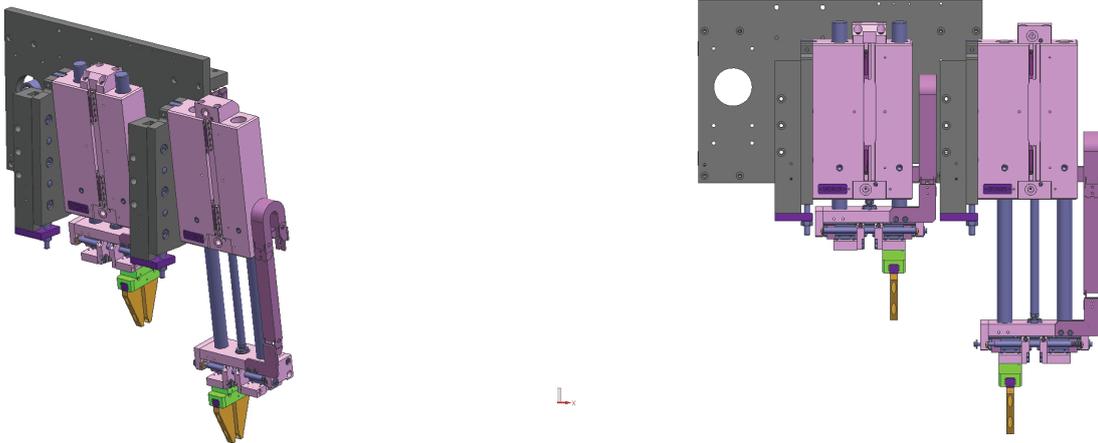
Part's center of gravity G should be close to the gripper

Gripper modules

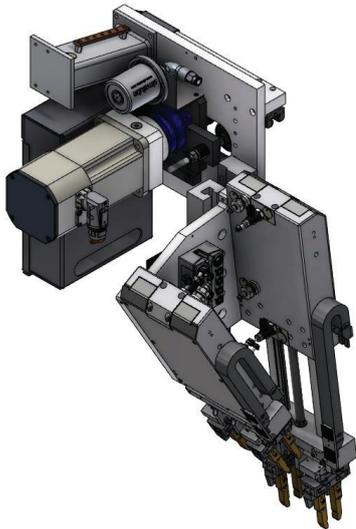
Gripper module in V-arrangement with two parallel grippers (standard / basic equipment)



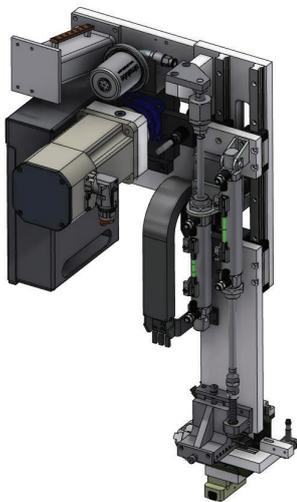
Gripper module with two gripper units in H-arrangement and two parallel grippers (for long shafts, which must be supported with a steady-rest)



Gripper module extension with two additional parallel grippers (for gripper units in V- or H-arrangement with two parallel grippers)



Gripper module with a lifting unit with 90 deg swivel head and two grippers (for chuck components)



Further gripper modules, swivel units, alignment units etc. possible depending on application.

Feed / removal unit:

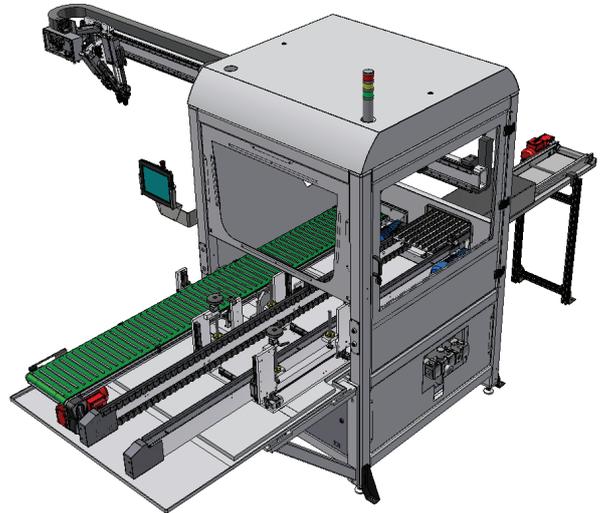
Peripheral equipment including continuous synchronized conveyor for individual components and pallets

Synchronized chain conveyor with V-block for rough parts, adjustable to different part sizes, forward and reverse indexing

Pallets of dimensions 300 x 400 mm (11.8" x 15.8") can also be used.

Pallet outfeed section mounted on an additional base frame

Outlet belt section with filling level and presence monitoring



FritzStuderAG
CH-3602 Thun
Tel. +41-33-439 11 11
Fax +41-33-439 11 12
www.studer.com