

CamScan 100

2020-02-26



Measure for success

CamScan 100



CamScan 100

The surface of a freshly ground component may appear to be fine, but **unseen damages** on or below the surface, when gone undetected, can lead to serious problems for the end user.

Undetected grinding burn or heat treatment defect may cause:

- ✓ Internal quality failure on production line (extra costs: rework, scrap)
- ✓ External quality failure (warranty cases, brand value loss)

CamScan 100 is a semi-automated grinding burn and heat treatment defect detection system for low-volume applications.



CamScan 100

CamScan 100 is designed for quality control needs of small to medium sized circular symmetrical parts like passenger car shafts.

- ✓ Customizable ground level system for Barkhausen noise inspection method
- ✓ One stand can be equipped with several different sensor arms and sensors for detecting a great variation of surfaces and parts
- ✓ Can be placed next to production line for sample test and optimizing machining parameters or in testing laboratory for material study



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Standard system	Item 100006
Frame	123346010
Rotation unit	123346030
Tailstock	123346020
Drive center, precision ground	123346385
Sensor carrier, OD type	100148
Fixing piece	123346013
Energy chain assembly	123346016
Power cable:	
✓ Power cable 2.5 m, Europe (Type F)	270110250
✓ Power cable 2.0 m, North America (Type B)	270110260
✓ Power cable 2.0 m, UK (Type G)	270110280
✓ Power cable 2.5 m, China (Type I)	270110284
BN tool set	288490008
Documentation in English	000002
Factory acceptance test	5044

Mandatory accessories (analyzer+sensor+software)	Item
Rollscan analyzer:	
✓ Rollscan 250	100036
✓ Rollscan 350	100034
Sensor depending on the sample and surface to be measured	
ViewScan software package (English)	100050

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Options for sensor carrier	Item
ID sensor arm	123550040
Custom sensor carrier/arm/fixture	100152
Sensor carrier limiter	123346018
Sensor carrier limiter spring stopper	123346019

Options for frame	Item
✓ Short frame: length less than 1150 mm/45.28 in	123346011
✓ Long frame: length 1151 mm–2000 mm/45.31 in–78.74 in	123346012

Options for drive head	Item
Drive center with plastic pin	123346380
Drive center, smooth	123346383
Drive center, smooth and cut	123346384
Drive center 7610120	36307610120B
Chuck assembly RöhM 300ZG	123346033
Chuck and chuck jaws (RÖHM KRF 125)	123346034

Options for comb plate	Item
CamScan comb plate	100149
CamScan 100 comb plate holder	123346014
Finger protection casing	123346015

Other Options	Item
Bed for assembled camshaft modules (X-Y table for cylinder head module)	
Camshaft/shaft bed	
V-blocks	
Auto-stop unit	282005101
2D code reader ViewScan option: 2D code reader module	100181 6010005407
ViewScan: Other language module	6010005402
Documentation in local language	990009

For optional accessories, see "Barkhausen noise accessories" presentation.

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Standard system features

Electric cabinet

Control panel with:

- ✓ Light indicators for power and trigger
- ✓ Trigger mode switch with three triggering options
- ✓ Rotation start and stop buttons
- ✓ Rotation speed adjuster
- ✓ Emergency stop push button

Chuck with two different types of jaws and one drive center

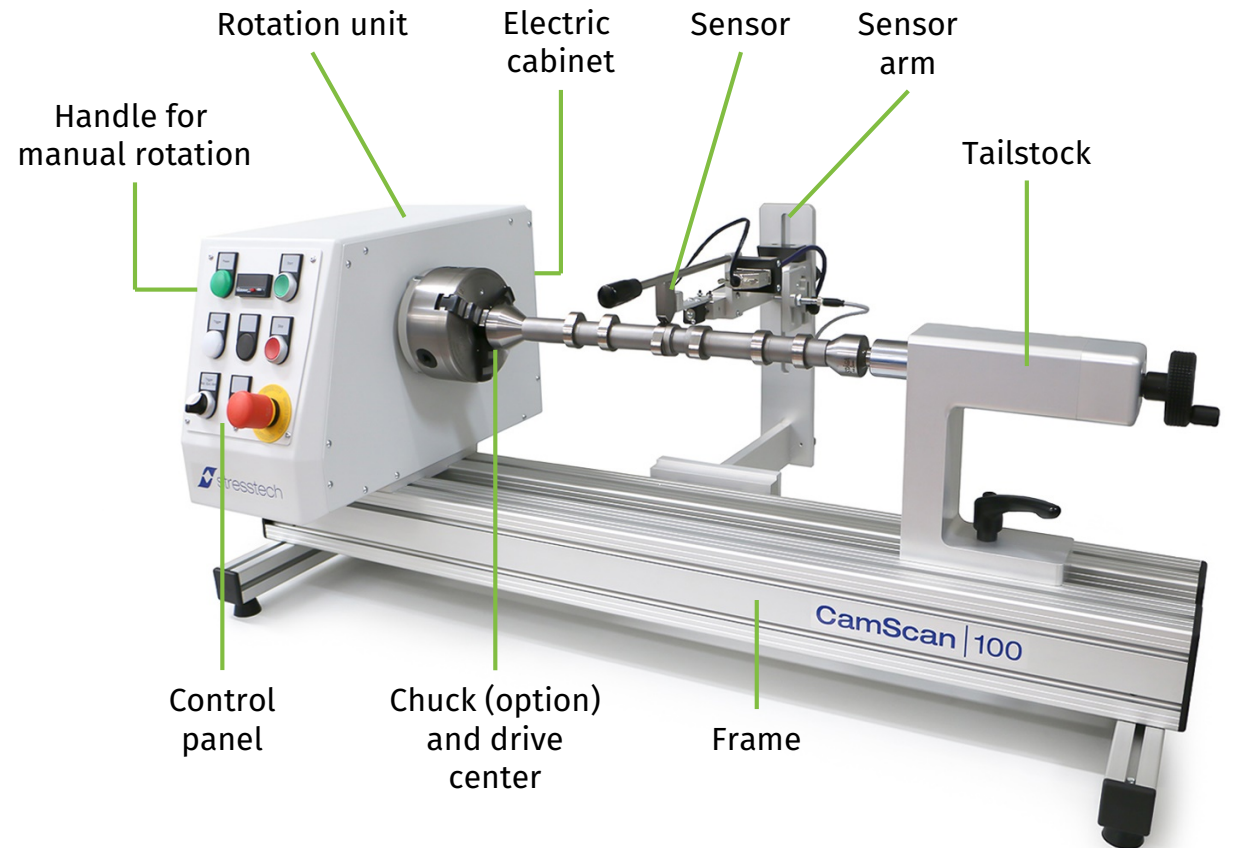
Rotation unit

Handle for manual rotation

Tailstock with fine adjustment wheel

One sensor arm as standard, additional sensor arms as option

Standard frame 1150 mm, other sizes as option



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Options for sensor carrier

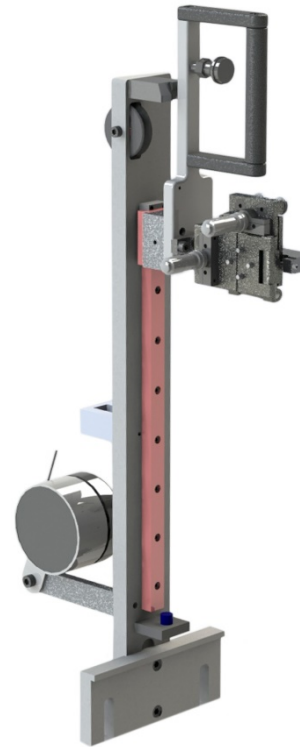
ID sensor arm for measuring ID surfaces

Custom sensor carrier/arm/fixture

Sensor carrier limiter

Sensor carrier limiter spring stopper

ID sensor arm
123550040



Sensor carrier limiter
123346018



Sensor carrier limiter
spring stopper
123346019



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Options for frame

- ✓ Short frame: length less than 1150 mm/45.28 in
- ✓ Long frame: length 1151 mm–2000 mm/45.31 in–78.74 in

Options for drive head

Drive center with plastic pin

Drive center, smooth

Drive center, smooth and cut

Drive center 7610120

Chuck assembly Röhms 300ZG

Chuck and chuck jaws (RÖHM KRF 125)

Drive center with plastic pin

123346380



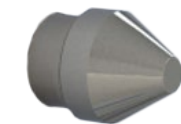
Drive center, smooth

123346383



Drive center, smooth and cut

123346384



Drive center 7610120

36307610120B



Chuck and chuck jaws (Röhms KRF 125)

123346034



Chuck assembly Röhms 300ZG

123346033



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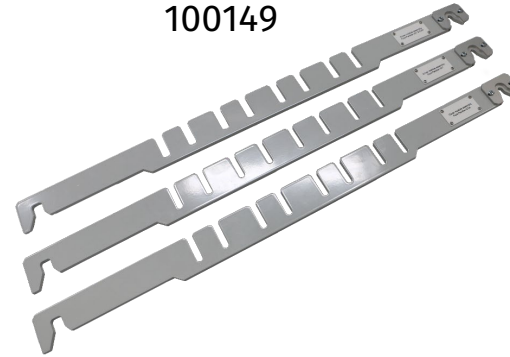
Options for comb plate

CamScan comb plate for aligning the sensor

CamScan 100 comb plate holder

Finger protection casing between the comb plate holder and chuck

Comb plate for CamScan
100149



Comb plate holder
123346014



Casing
123346015



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Other Options

Bed for assembled camshaft modules (X-Y table for cylinder head module)

Adjustable camshaft/shaft bed for attaching v-blocks to the frame

V-blocks for the axle support

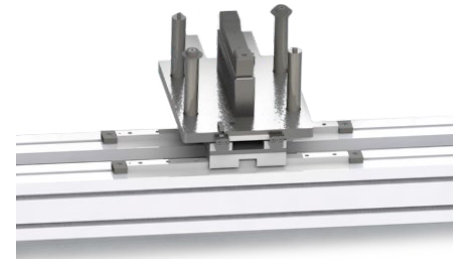
Auto-stop unit

2D code reader
ViewScan option: 2D code reader module

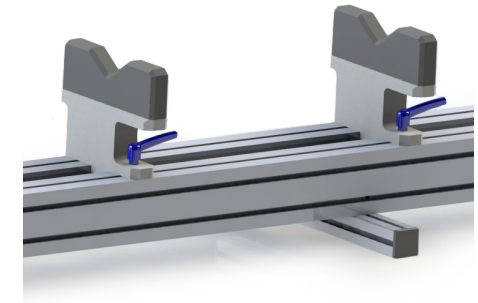
ViewScan: Other language module

Documentation in local language

Bed for assembled camshaft modules



Camshaft/shaft bed



V-blocks



2D code reader
1001810



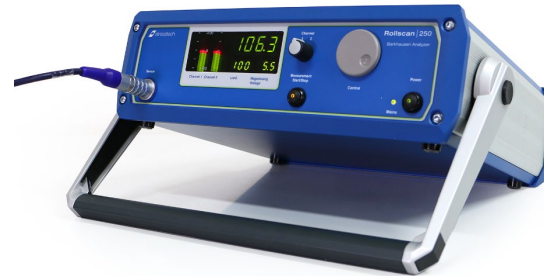
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Mandatory accessories: Analyzers

Barkhausen noise system requires analyzer:

- ✓ **Rollscan 250**
for manual and automated two-channel systems
- ✓ **Rollscan 350**
with graphical display for manual and automated systems

Rollscan 250
100034



Rollscan 350
100036



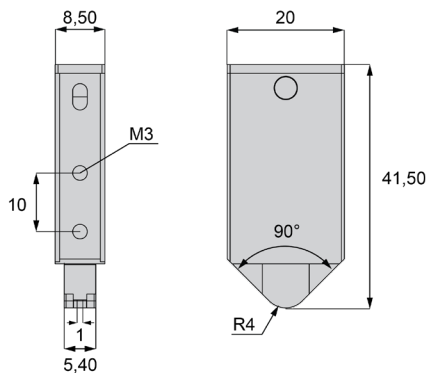
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Mandatory accessories: Sensors

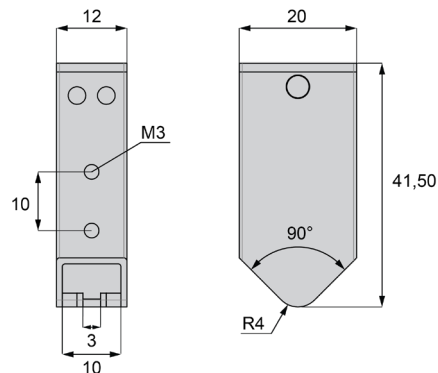
Area to be measured defines size and shape of the Barkhausen noise sensor. One system can be equipped with several different kind of sensors. Typical sensors for camshaft are presented on this page.

Cam lobe width	Sensor size
6 mm →	1 mm
10 mm →	3 mm
12 mm →	5 mm
14 mm →	8 mm

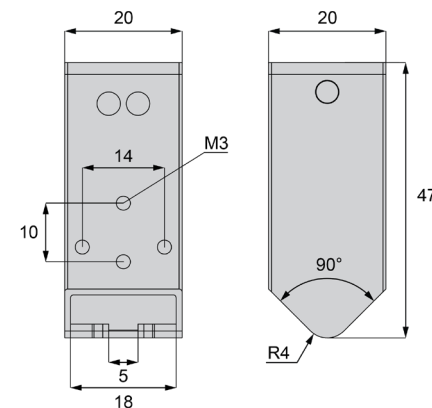
Cam sensor 1 mm
S1-11-22-010A



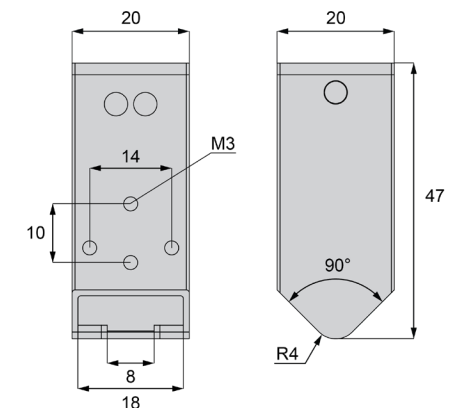
Cam sensor 3 mm
S1-11-22-030A



Cam sensor 5 mm
S1-11-22-050A



Cam sensor 8 mm
S1-11-22-080A

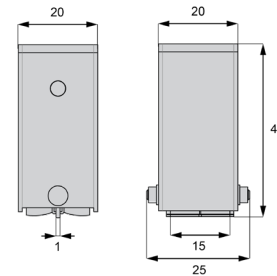


CamScan 100

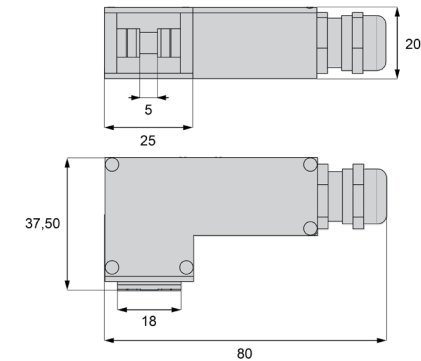
Mandatory accessories: Sensors

Area to be measured defines size and shape of the Barkhausen noise sensor. One system can be equipped with several different kind of sensors. Typical sensors for outer and inner diameter measurements are presented on this page.

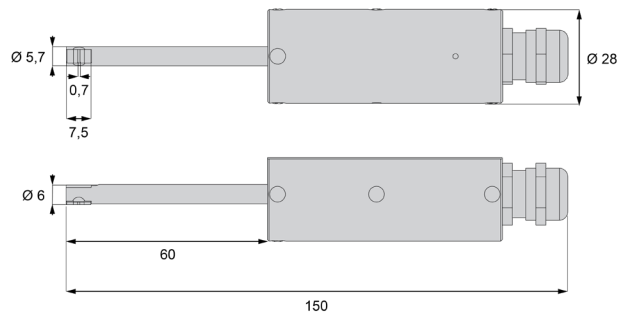
OD sensor 1 mm
S1-15-32-02



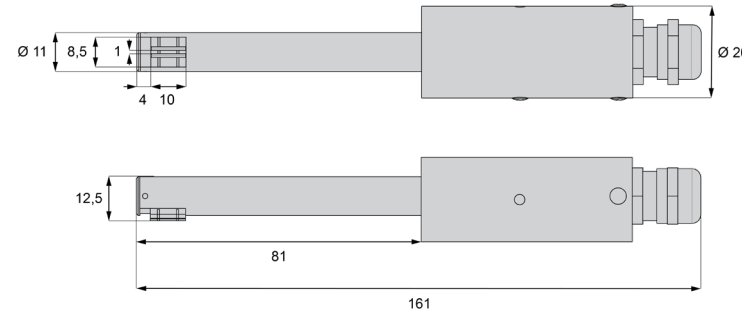
ID sensor, axial
S1-19-22-02



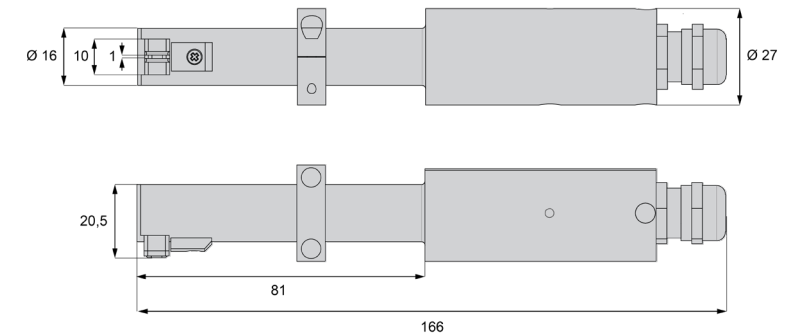
ID sensor, axial
S1-19-22-01



ID sensor, circumferential
S1-19-32-01



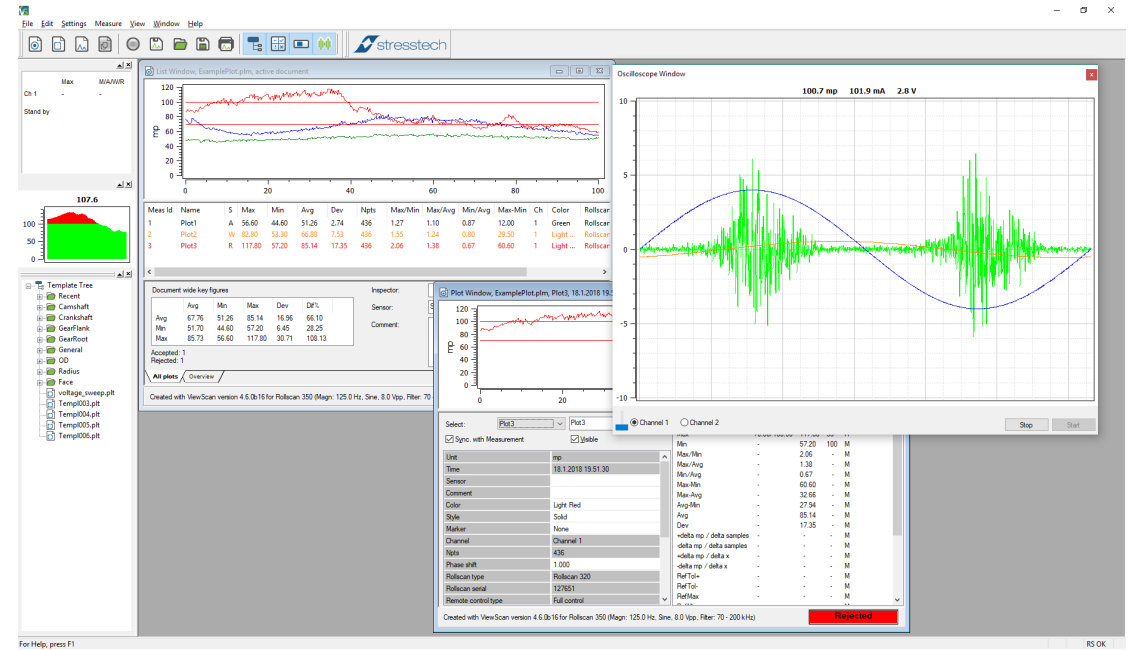
ID sensor, circumferential
S1-19-32-02



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Mandatory accessories: ViewScan data analyzing software

- ✓ Collect and analyze data from Rollscan
- ✓ Document your measurement by saving and printing the results
- ✓ Export data for analysis with other programs
- ✓ Set rejection limits for real-time rejection checking
- ✓ Collect data from multiple Rollscan analyzers simultaneously
- ✓ View the results as a 3-dimensional polysurface



ViewScan
100050

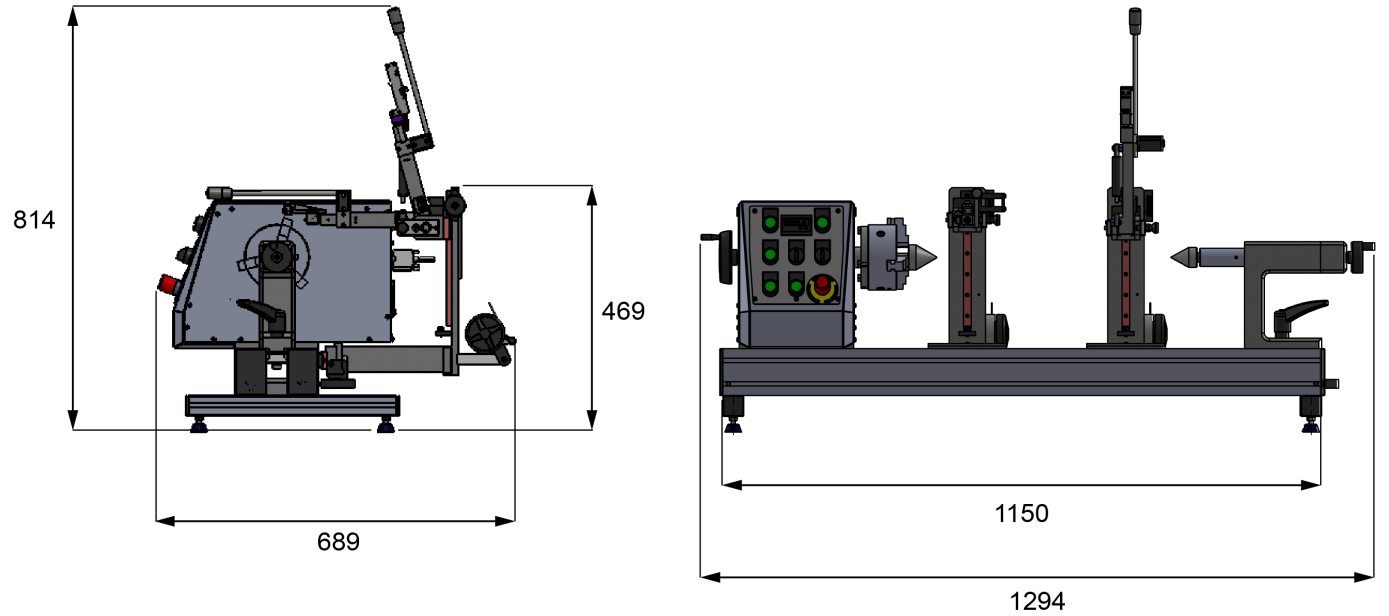
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Dimensions

Depth	689 mm	27.13 in
Width	1294 mm	50.94 in
Height	469–814 mm	18.46–32.05 in
Weight	50 kg	110 lbs

Power demands

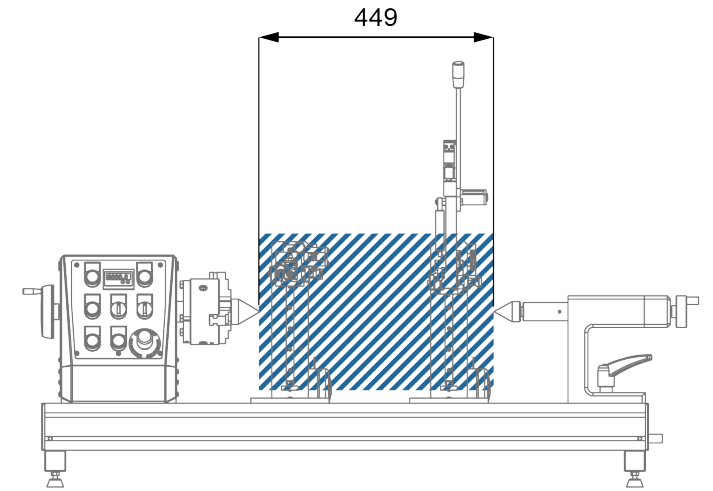
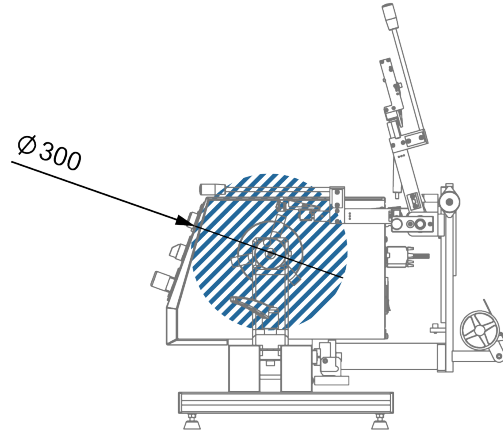
Voltage	100–240 V AC, 50–60 Hz
Power	130 VA



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Part dimensions (standard system)

Max. part diameter	300 mm	11.81 in
Max. part length	449 mm	17.68 in
Max. part weight	10 kg	22 lbs



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Operations

1. Select correct template from ViewScan software or create new measurement template (needs to be done once for each part).
2. Select trigger mode and rotation speed if needed.
3. Make sure the part to be measured is clean.
4. Place the part between the centers.
5. Move sensor to the part you want to measure.
6. Start rotation and hold the sensor against the surface to be measured.
7. Stop rotation when the measurement is done (Not needed with auto-stop unit option).
8. See the results on Rollscan front panel and ViewScan screen.
9. Save and print the results as required in company policy.



Feature	CamScan 500C	CamScan 300	CamScan 200	CamScan 100	CamScan 50
Max. part diameter	210 mm/8.27 in	85 mm/3.35 in	85 mm/3.35 in*	300 mm/11.81 in	300 mm/11.81 in
Max. part length	850 mm/33.46 in	798 mm/31.42 in	1320 mm/51.97 in	445 mm/17.52 in	445 mm/17.52 in
Max. part weight	15 kg/33 lbs	10 kg/22 lbs	50 kg/110 lbs	10 kg/22 lbs	10 kg/22 lbs
Automation level	Automated (turn-key system)	Semi-automated (turn-key system)	Semi-automated (ground-level system)	Semi-automated (ground-level system)	Manual (ground-level system)
Standard amount of sensor arms or sensor carriers	1+1	1	1	1	1
Max. amount of sensor arms/carriers	1+1	1	2	3	3
Sensors in use simultaneously	1	1	1	1	1
Trigger mode: Rotation/External/Camshaft lobe	NA	✓/✓ (Opt.)/✓	✓/✓ (Opt.)/✓ (Opt.)	✓/✓ (Opt.)/✓ (Opt.)	-/✓ (Opt.)/✓ (Opt.)
Auto start/stop	NA	✓/✓	-/✓	-/✓ (Opt.)	-/-
Software controlled	✓	NA	NA	NA	NA
Compatible with Rollscan 350/320/250	✓/✓/✓	✓/-/✓	✓/-/✓	✓/-/✓	✓/-/✓
Comb plate	NA	3 pcs	Opt.	Opt.	Opt.
Tailstock with precision linear guide	✓	✓	✓	-	-
Safety enclosure with integrated PC cabinet and keyboard & monitor mount	✓	-	-	-	-
Voltage	115 or 230 V AC, 50-60 Hz**	115 or 230 V AC, 50-60 Hz**	115 or 230 V AC, 50-60 Hz**	100-240 V AC, 50-60 Hz	-
Power	1.4 kVA	350 VA	460 VA	130 VA	-
System weight	500 kg/1102 lbs	115 kg/254 lbs	200 kg/441 lbs	50 kg/110 lbs	35 kg/77 lbs
System H x W x D	2219 x 2033 x 871 mm 87.36 x 80.04 x 34.29 in	412 x 1792 x 809 mm 16.22 x 70.55 x 31.85 in	739 x 2721 x 750 mm 29.09 x 107.13 x 29.53 in	469 x 1294 x 689 mm 18.46 x 50.94 x 27.13 in	469 x 1294 x 636 mm 18.46 x 50.94 x 25.04 in

*If the part diameter is more than 85 mm, please contact Stresstech sales

**Voltage to be specified

