

FALCON 600

Micro Hardness Tester | Vickers, Knoop, Brinell

FULLY **AUTOMATED**



FALCON 600

Our vision, your future...

The FALCON 600 Automated Hardness Testing System provides a fully integrated platform for your complete Vickers, Knoop & Low Force Brinell hardness testing needs.

Coming from a leading edge of mechanical design, with a range of CNC stages and best in class optics, 18 Megapixels, 4K, full color image technology, to a fully featured, easy to use, User Interface. A standard force range of 1gf to 62.5kgf, optional going down to forces as low as 0.1gf, to be used in combination with any thinkable software application, provides a micro hardness testing machine for today, tomorrow and better... for the future.



HARDNESS SCALES



VICKERS 0.1gf - 50kgf *



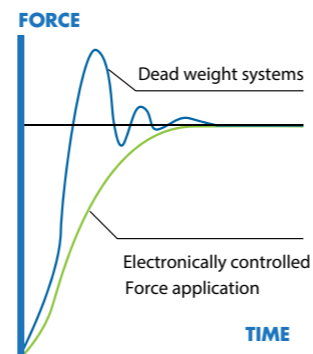
KNOOP 1gf - 5kgf *



BRINELL 1 kgf - 62.5 kgf *

* All scales

TECHNOLOGY OF TODAY



Load cell, closed loop, force feedback system

A FORCE RANGE, THAT SETS NEW STANDARDS!

0.1gf	10gf	10kgf	FALCON 603
0.1gf	1gf	31.25kgf	FALCON 608
0.1gf	1gf		FALCON 611 62.5kgf

* Extended range

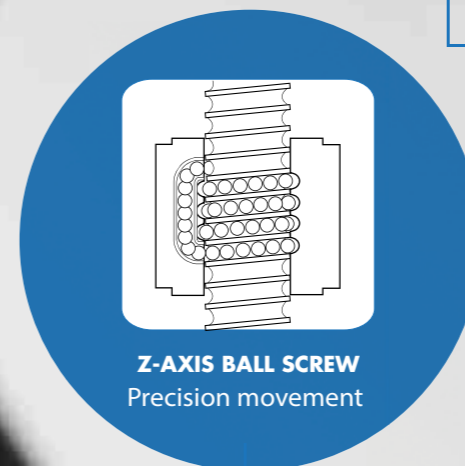
HIGHLIGHTS

- 1 Multi Load Cell, Closed Loop force application system, error <0,25%
- 2 6 position turret, 2 indenter positions, 4 LWD objectives installed (included)
- 3 Turret collision detection and workpiece retraction safety system
- 4 18 Megapixel, 4K, full color integrated camera system
- 5 Full X-Y stage overview camera, optical zoom system, variable field of view
- 6 TTL power LED with color filter, Dual bank power LED stage illumination
- 7 Large CNC X-Y stage 300 x 225mm, Z-axis with ball bearing spindle (standard)
- 8 Integrated system controller, i7 processor, mSSD Raid system storage
- 9 Industrial 15" touch screen, option for second screen 15", to 55" or projector
- 10 Top-class replaceable body parts, shock proof ABS covers

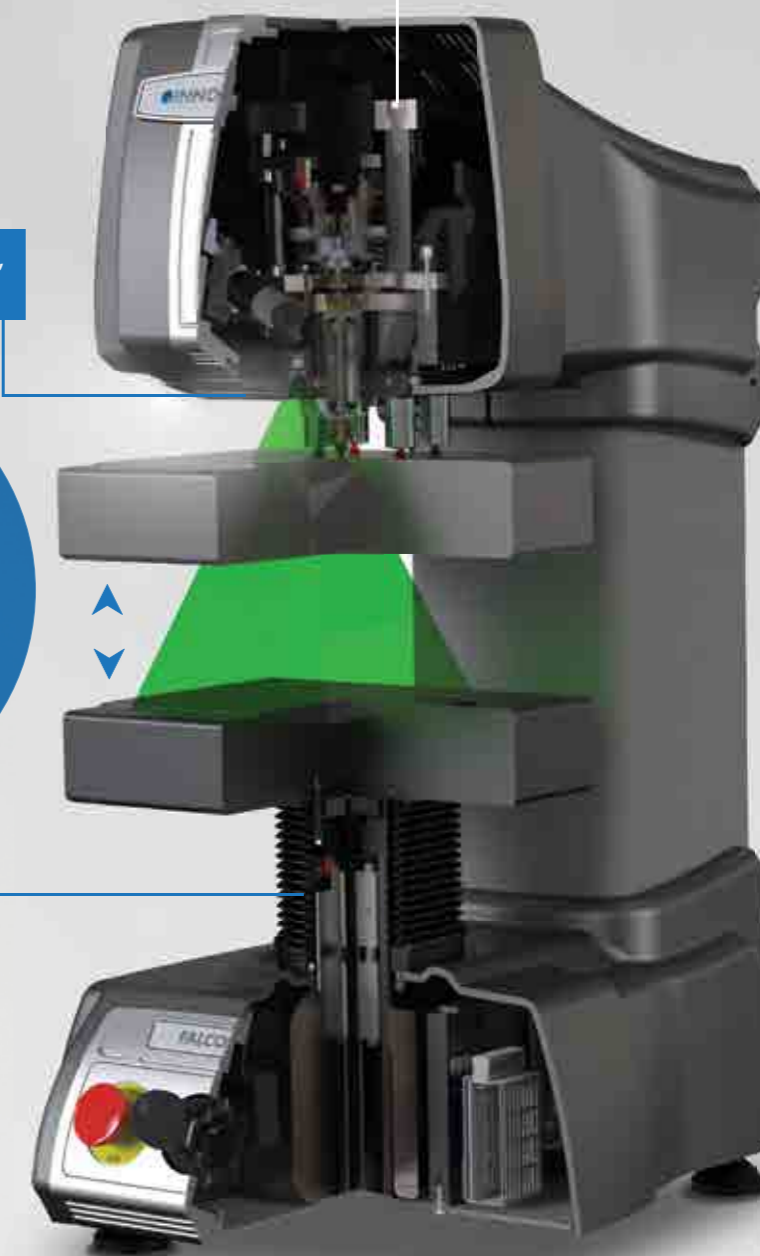
BOUNDLESS INNOVATION



Optical zoom, auto focus,
stage overview camera



Multi loadcell,
ball bearing,
force actuator



Observe, Think, Try, Change...

Ridgidity and perpendicular indenter positioning are crucial to obtain Vickers indents with a perfect geometry. Re-invented, adjustable indenter actuators provide maintenance free, smooth force application, easy to access and easy to replace indenters. Standard integrated X-Y stage overview camera, with optical zoom, reduces application set up time dramatically.

Changing the game...

1 6 POSITION PRECISION TURRET & OPTICAL SYSTEM

The 6 position turret is supplied as a standard feature on all 600 models and allows to install indenters for Vickers, Knoop and Brinell (balls 1mm & 2,5mm) testing. Factory installed, the F600 has (4) objectives 2.5X, 10X, 20X, 50X that, in combination with the 18 Megapixel camera, with 4X digital zoom, supersede the need to buy larger magnification objectives.

2 STAGE OVERVIEW CAMERA

Create magnified sample overview with the standard on-board, auto focus, optical & digital zoom, overview camera. The field of view of this sophisticated full color camera system does not limit you to one field of view, but gives a ZOOM range of 50 x 35mm up to 200 x 180mm without the need to use time consuming scan and stitch functions.

Once the viewing area needs to be larger than the zoom range, scanning and stitching can be selected to create full stage overview. Click and go is one of the standard testing features of the overview camera. Just click randomly on designated area's and push "start". All tests run automatically. The pattern video overlay function eases positioning of multiple test rows or patterns across the specimen. The pattern video overlay scales automatically with every magnification, stepless, while the zoom camera decreases or enlarges the overview.

3 DYNAMIC Z-AXIS CONTROL & COLLISION DETECTION

A high end ball bearing Z-axis spindle is one of the very unique functions. Z-axis displacement at an accuracy of micron's supports ultra-fast auto focus. Z-axis controls are nearly limitless; CNC as a result from a test program, by touch screen indicators, from the built in joy stick, by the scroll wheel of the mouse, by fast up and down buttons or from a scroll wheel on the front of the machine. Positioning has never been this easy. Speed control related to your own movement; (0.01 up to 20 mm/s).

To avoid any collision between the work piece and the turret, the Z-axis is controlled by a flawless collision detection and Z-axis retraction system. So neither the tester nor the workpiece are exposed to any damage.

4 HIGH SPEED CNC MOTORIZED X-Y STAGE

Save time and improve efficiency with one of the high speed, highly accurate motorized XY-stages. Available in variable sizes from standard, to large and extra-large. Enable automated sequencing of multiple samples. The ultra-high accuracy and repeatability guarantee precise positioning of indents and allow re-evaluation of any measurement points in batch or single view. Repeatability within 3 micron.



CONNECTIVITY, CONTROL & QUALITY ASSURANCE

The system has bi-directional in and output channels. Tester control can be conducted remotely and supports for instance, but not limited to robotic systems. Test values can be exported as single values or as string of data to be handled by 3rd party quality evaluation software.

Q-DAS certified. (Optional)

5 15" HD TOUCH SCREEN OPERATOR INTERFACE

All machine control and process workflow can easily be operated from the 15" industrial capacitive touch screen. At choice a second 15" or larger screen can be connected.

6 SHOCK RESISTANT ABS MACHINE COVERS

The tester is fitted with a high-end external shell structure. All in a unique design with high-end aluminium panels. The shock proof and damage resistant ABS machine covers can withstand the harshest environment.

Science fiction?... No, just reality ahead of schedule

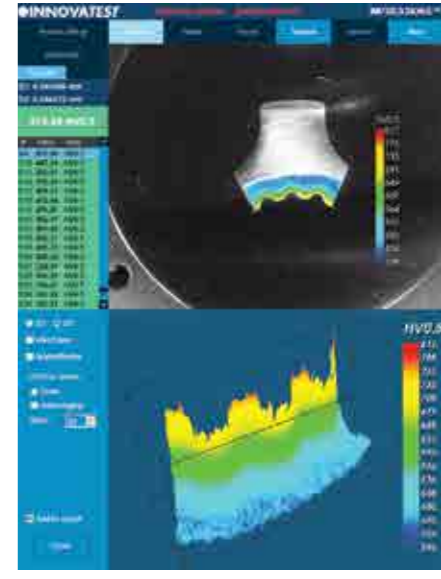
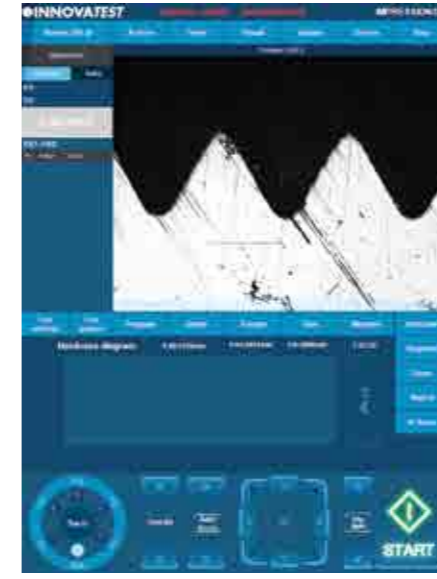
The Graphical User interface (GUI), contains Industry preferred applications, and offers easy to learn, advanced workflow control. A simple test can be set up and conducted in about 3 seconds... IMPRESSIONS layout & functions will match not only your particular application requirements, but also meet the needs and preferences of your operators. A user level management system maximizes their comfort and efficiency.

The unique in the industry, 15" portrait mode, capacitive touch screen, gives room to all possible applications. Dual screen: For demanding users, a second vertical 15" or 24" landscape screen can be connected. For educational purposes, schools, universities, a full HD projector (beamer) can be connected to the HDMI supported outlet. With this many options in Hardware and Software configuration, yearly updates and on demand upgrades, IMPRESSIONS® is truly the leading software in the industry.



FEATURED BY IMPRESSIONS v2

ADVANCED SOFTWARE APPLICATIONS



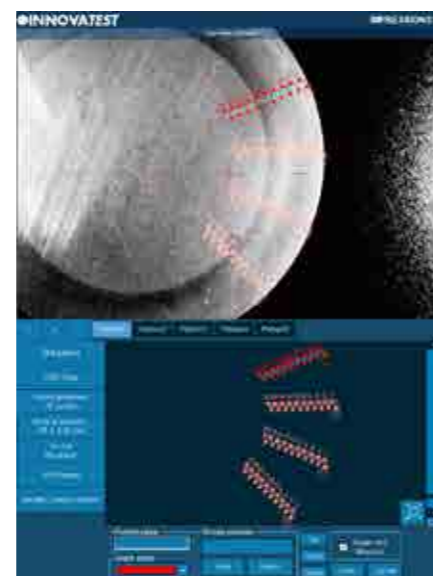


1 VIDEO OVERLAY GRAPHIC PATTERN EDITOR

The IMPRESSIONS pattern editor allows the user to create any number of test patterns with a large number of variable settings. Create test patterns with great precision and freedom. Verify the settings in the preview mode. Drag & drop patterns from one test sample to another sample. Live vision technique over zoom overview camera, no image stitching required. Combine different patterns and even different test forces in one program, and run them fully automatically. All test points can be identified individually or to customer specifications. The label is shown in the test result list and in the test results overview and print out. An important function for later sample analyses.

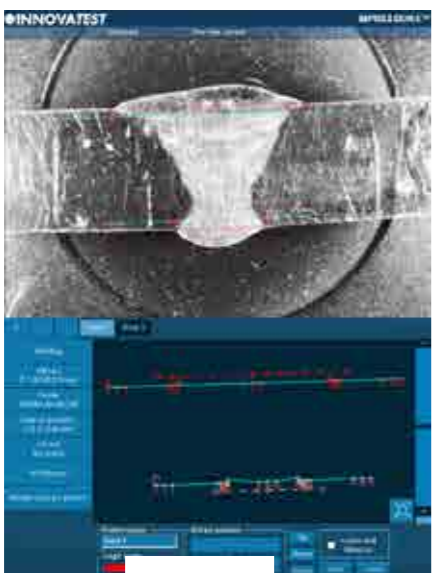
2 CHD, SHD, NHD

For the performance of test series for CHD/SHD/NHD data of specimens according to standard. The test can be started directly from the surface view or from the overview. Additional core points of hardness can be defined separately for NHD measurements. The distances of test points are automatically set to a minimum distance, following the standard, to assure correct testing is conducted. Time saving test mode "complete all indentations - then evaluate" and "auto-stop" to complete test series as soon as the lower hardness limit has been reached.



3 WELD INSPECTION (ISO 9015)

This especially developed tool enables you to conduct hardness testing on welded parts or segments according to ISO standard. Setting up the pattern according to the requirements becomes "easy-to-do", due to pre-set test points in the different zones of the weld and automatic correlation between test points. The system will run a fully automatic test procedure and displays and records the results accordingly.



Easy to operate, time reducing solutions...

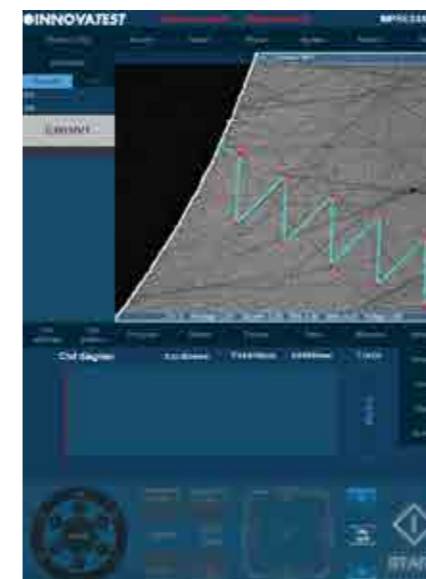
4 HARDNESS OF SCREW THREAD DECARBONIZED ZONE (ISO-898-1)

A specialized software tool of IMPRESSIONS® allows you to set up and conduct fully automatic testing as per ISO 898-1 for screw thread measurement of (de)-carbonized part.



5 AUTOMATIC EDGE DETECTION

Technology that automatically or at a mouse click recognizes the edge of your sample. This helps to determine and fix the desired starting position for CHD or other pattern testing jobs

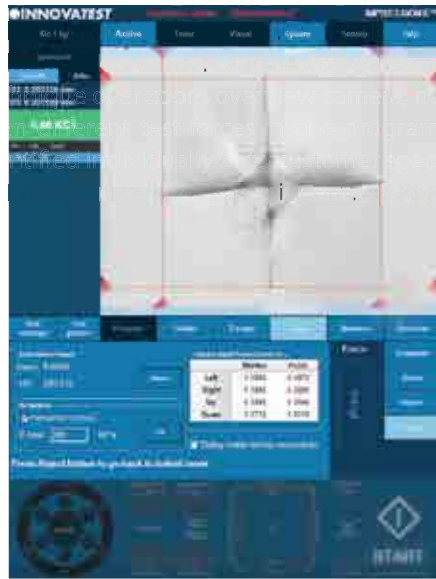


6 AUTOMATIC CONTOUR SCANNING

This application scans the entire outline (or partial) area of a sample. The function can be used with an objective or, ultra fast, by using the overview zoom camera. The system scans the entire outline defined and stores all relevant data in the test program. Subsequently, a chosen number of test points can be programmed into the particular program, or be conducted at selected distances, relative to the edge. This advanced feature enables the hardness testing procedure to be performed completely automatic. An excellent feature to combine with 2D or 3D hardness mapping, also known as "plane hardness chart".

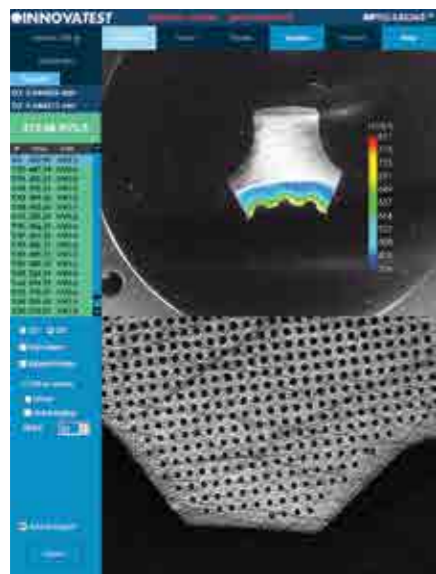


Yes, we can...



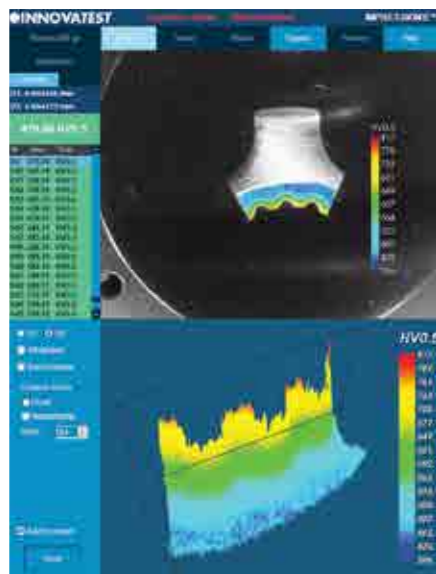
7 K1c CRACK MEASUREMENT

For those requiring more in depth knowledge on materials behavior, and wish to study on fracture and fatigue, crack growth can be predicted (and measured) by using the K1c application. The software supports K1c crack detection under load. At choice, one of both methods, Palmqvist or Median / Radial fracture toughness can be selected.



8 2D HARDNESS CHART

The optional application „Plane hardness chart“, also referred to as Color Mapping, is the perfect tool for securing the detail of the hardness distribution over the total cross section, especially of heat treated samples. An important feature in material exploration, weld testing or in damage analysis.



9 3D HARDNESS CHART

Besides the option to display a 2D graphic diagram, the software can generate a 3D visual. 2D and 3D hardness chart are one application.

10 SNAPSHOT FUNCTION

This handy function in Impressions allows you to make screen captures of the viewing area. It gives the opportunity to store such images with comments or to paste them into the report generator for further processing.

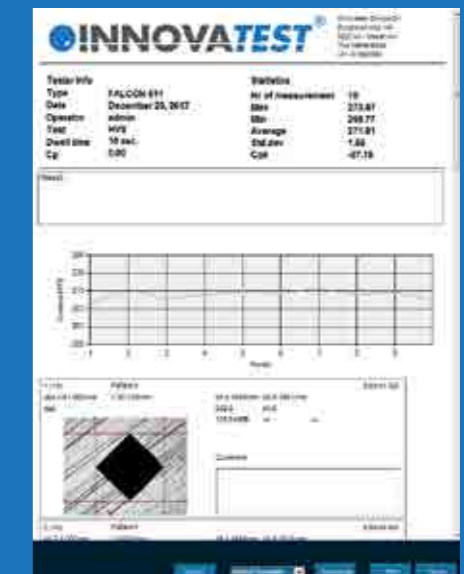


11 USER DEFINED PROGRAMS

For repeating jobs, IMPRESSIONS utilizes the option of setting up and storing custom test programs. For each task, a “job” can be created. All application specific parameters, like hardness scale, force, dwell-time, pattern, conversion and the report template are stored in the same program.

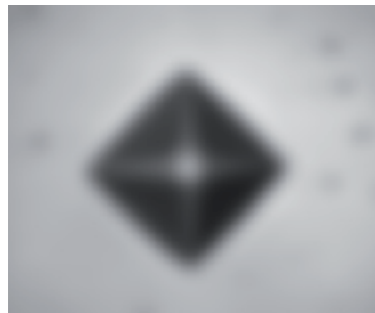
12 REPORT GENERATOR

The report generator offers to design customized testing reports, including your company’s details and logo and include testing results, graphics and pictures of indentations in an easy to edit environment. The file can be printed straight to a connected laser printer for further distribution. Alternatively the file can be exported as a CSV file, to be used in MS Office applications or 3rd party quality assurance software.



AUTOMATIC IMAGE

EVALUATION



1

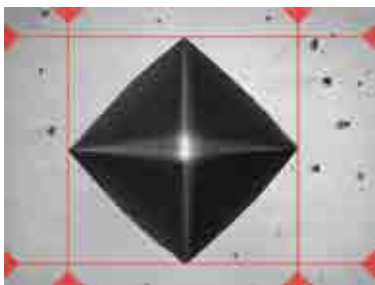
1 AUTO FOCUS

Fast & precise, observe how IMPRESSIONS® finds focus from a large distance, as far as the travel of the Z-axis allows. Algorithms used for close distance autofocusing set new standards in AF speed.



2 AUTOMATIC MEASUREMENT

Manual positioning of filar lines is no longer required. IMPRESSIONS® refined measurement algorithms detect indents even on very poor or scratched surfaces and measure the relevant indent dimensions according to standards. Stay in control by switching to manual measure mode and have the option of adjusting measurements by touching the screen or using the mouse. Filar lines can be colored to give the best contrast against the specimen's surface. To assure that measurements meet relevant standards on symmetry, enable the automatic indent check. All hardness values can be converted to other scales according to ISO 18265, ISO 50150, ASTM E140.



2

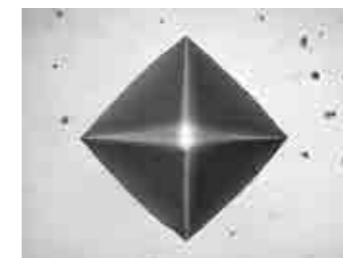
3 ILLUMINATION SETTINGS

IMPRESSIONS® software automatic illumination system adapts to the correct illumination regardless of the sample surface quality, wherever on the sample, independent from material (steel, carbide, coated or ceramic). Contrast, Brightness and Program, can be set automatically for each measurement or controlled manually. Sharpness can be stored with the pre-determined test

Too bright



OK



Too dark

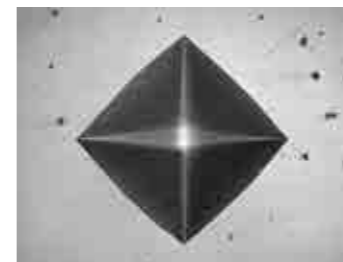


3

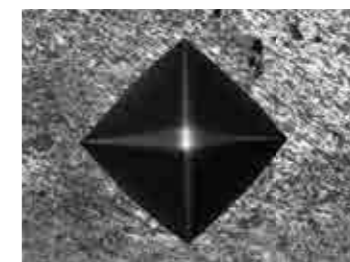
Irregular surface



Regular surface



Poor surface



4

4 REFINED IMAGE DETECTION

Complex, refined algorithms ensure reproducible measurements on different materials and even on scratched and damaged surfaces

Evaluate whatever you want, --
because what gets measured, gets produced...



INNOVATEST

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info@innovatest.eu

Tester Info:		Statistics:	
Type	FALCON 600	Nr of measurement	40
Date	24-1-2018	Max	166.78
Operator	Admin	Min	110.86
DwellTime	10 sec.	Average	133.12
Test	HV5	Standard Deviation	13.01
Program	5 4tule Op67 12.7x99 courses FN14	Range	48.63

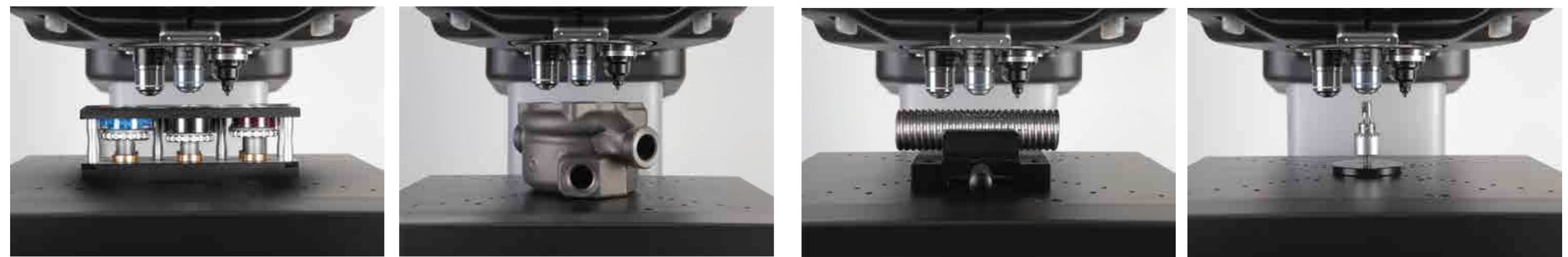
Gamma	15097-104
four	4

HARDNESS DIAGRAM

Point	Value	Value	Value	Value	Value	Value
1	128	133	138	143	148	153
2	153	158	163	168	173	178
3	178	183	188	193	198	203
4	203	208	213	218	223	228
5	228	233	238	243	248	253
6	253	258	263	268	273	278
7	278	283	288	293	298	303
8	303	308	313	318	323	328
9	328	333	338	343	348	353
10	353	358	363	368	373	378
11	378	383	388	393	398	403
12	403	408	413	418	423	428
13	428	433	438	443	448	453
14	453	458	463	468	473	478
15	478	483	488	493	498	503
16	503	508	513	518	523	528
17	528	533	538	543	548	553
18	553	558	563	568	573	578
19	578	583	588	593	598	603
20	603	608	613	618	623	628
21	628	633	638	643	648	653
22	653	658	663	668	673	678
23	678	683	688	693	698	703
24	703	708	713	718	723	728
25	728	733	738	743	748	753
26	753	758	763	768	773	778
27	778	783	788	793	798	803
28	803	808	813	818	823	828
29	828	833	838	843	848	853
30	853	858	863	868	873	878
31	878	883	888	893	898	903
32	903	908	913	918	923	928
33	928	933	938	943	948	953
34	953	958	963	968	973	978
35	978	983	988	993	998	1003
36	1003	1008	1013	1018	1023	1028
37	1028	1033	1038	1043	1048	1053
38	1053	1058	1063	1068	1073	1078
39	1078	1083	1088	1093	1098	1103
40	1103	1108	1113	1118	1123	1128

LIMITLESS POSSIBILITIES

The FALCON 600 is designed in such a way that for the large selection of fixtures and specimen holders can be used on the CNC X-Y stage. The frame size allows a large workspace accommodation. Regardless of the shape of a particular workpiece, the accessories list and corresponding software applications enable to test almost any component and part.





SUPPORT YOUR BEST TESTING RESULTS

With our rigid designed Bench stands

- Rock solid bench stands
- 100% retractable drawer, bearing guidance, max 100kg load. Rubber anti slip bottom
- Lockable cabinet, 300mm high
- Adjustable feet, (+/- 50mm height adjustable to reach ergonomic working position)
- Made of corrosion resistant zinc plated steel with RAL powder coating
- Carrying capacity of 400kg
- Top surface made of 50mm Plywood with 1.5mm chemical resistant plastic plating, edges made of shock resistant 3mm ABS side liner
- Industrial quality, for workshop or laboratory

Designed for hardness testing instruments, painted in INNOVATEST® RAL colors matching our testers.



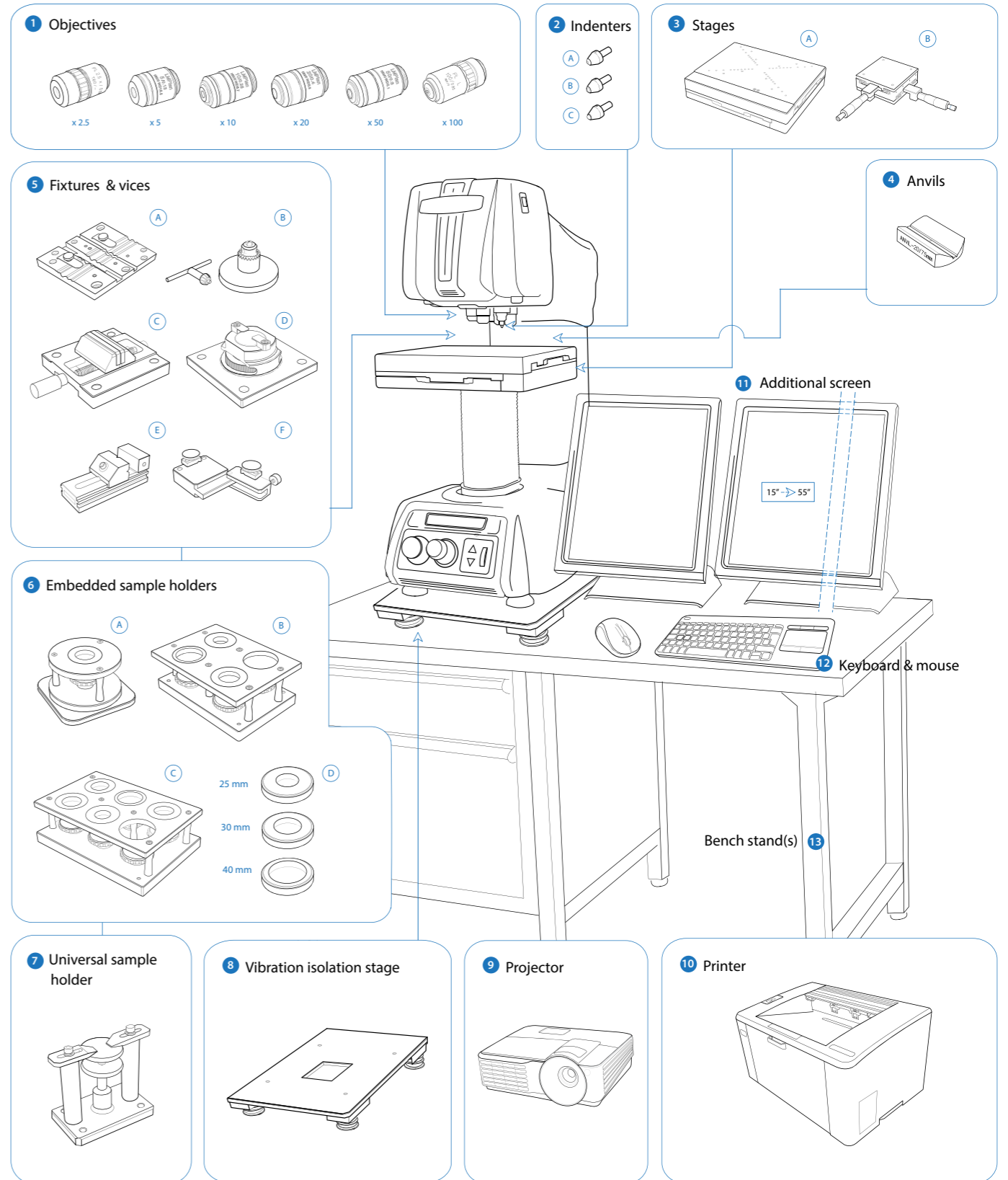
UN-STAND/960 71 x 75 x 80 cm



UN-STAND/965 150 x 75 x 80 cm

ACCESSORIES FALCON 600

Schematic overview of the configuration options, standard and optional accessories



Not all accessories are displayed on this page. Full details can be found on the Order details page.

ORDER DETAILS

FALCON 600



FALCON 603 Micro hardness tester, 10gf - 10kgf	FALCON 603	
FALCON 608 Micro hardness tester, 1gf - 31.25kgf	FALCON 608	
FALCON 611 Micro hardness tester, 1gf - 62.5kgf	FALCON 611	
Force extension 0.1gf - 0.99gf, for models 608/611	F600/FE01	

ACCESSORIES

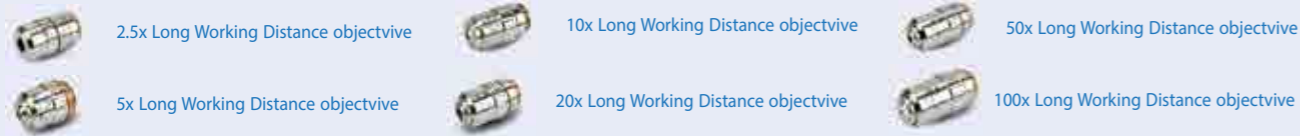
1	Objectives	2.5 x Objective FOV 2000 µm	ASSUN-OBJ2.5X	STANDARD
		5 x Objective FOV 1000 µm	BM-05-0001	
		10 x Objective FOV 500 µm	BM-05-0002	STANDARD
		20 x Objective FOV 250 µm	BM-05-0003	STANDARD
		50 x Objective FOV 125 µm	BM-05-0004	STANDARD
		100 x Objective FOV 75 µm	BM-05-0005	
		Stage overview camera, high resolution, HD, full color	UN-OVCAM2C	STANDARD
		Second indenter position. Factory installed	FALCON/IP2	STANDARD
2	Indenters	A Vickers Indenter ISO/ASTM certified	IN-8105	
		B Knoop Indenter ISO/ASTM certified	IN-8205	
		C Brinell Indenter 1 mm, includes 1 carbide ball, ISO/ASTM certified	IN-7001	
		Brinell Indenter 2.5 mm, includes 1 carbide ball, ISO/ASTM certified	IN-7006	
		Brinell Indenter 5 mm, includes 1 carbide ball, ISO/ASTM certified	IN-7011	
3	Stages	A Motorized CNC X-Y stage, 250x205mm Displacement: 120x100mm, Motorized CNC X-Y stage, 300x225mm, Displacement: 170x120mm, Motorized CNC X-Y stage, 350x225mm, Displacement: 220x120mm. Repeatability +/-0.003mm; requires: cable set, CE-99-0002, no extra fixture required	UN-XY571210 UN-XY571712 UN-XY572212	STANDARD
		Cable connecting to CNC stage to embedded driver (X-Y set)	CE-99-0002	STANDARD
		B Manual X-Y stage with analogue metric micrometers, 100x100mm, Displacement: 25x25mm, scale 0.01mm, max load 100kg, Requires: AS500XL-450-02 Mounting plate	UN-XYSTAGE/120	
		Digital micrometer head, Displacement: 25mm, res. 0.001mm	IMP-DIGMIC	
4	Anvils	Small V-anvil 3-20 mm, requires base plate	UN-ANVILSV/105	
		Large V-anvil 20-75 mm, requires base plate	UN-ANVILLV/106	
		Base plate for V-anvils UN-ANVILLV-105/106	UN-VANVILBASEPL	
5	Fixtures and vices	A V Groove clamp for small round parts dia. 0.8-5 mm	UN-VGROOVECLAMP	
		B Axle chuck	UN-AXLECHUCK/105	
		C Small parts vice jaw; width 55mm; open 50 mm; self-centering	UN-VICE/115	
		D Thin metal clamp	UN-CLAMP/115	
		E Polished precision vice lock down system ; jaw 25 mm, depth 20 mm	UN-VICE/210	
		Polished precision vice lock down system ; jaw 36 mm, depth 42 mm	UN-VICE/215	
Polished precision vice lock down system ; jaw 48 mm, depth 75 mm	UN-VICE/220			

		Polished precision vice lock down system ; jaw 75 mm, depth 100 mm	UN-VICE/230	
		F Wire testing fixture	UN-WIRE/105	
6	Embedded sample holders	A Sample holder for 1 sample, 50mm/2"	UN-ESH1	
		B Sample holder for 4 samples, 50mm/2"	UN-ESH4	
		C Sample holder for 6 samples, 50mm/2"	UN-ESH6	
		D Insert 25mm, for sample holders	UN-ESHI25	
		Insert 30mm, for sample holders	UN-ESHI30	
		Insert 40mm, for sample holders	UN-ESHI40	
7	Sample holder	Universal clamp and levelling device	UN-CLAMP/105	
8	Vibration isolation stage	Passive vibration isolation stage, clamping of of vibration for low force testing.	UN-AVS-150	
9	Projector	On request, any brand of your choice	UN-PROJECTOR	
10	Printer	Laser printer	UN-PRINT	
11	LCD screen	Portrait mode 15" capactive touch screen	UN-SCREEN1	STANDARD
		Additional portrait mode 15" capactive touch screen	UN-SCREEN1	
12	Keyboard and mouse	Logitech keyboard and mouse	UN-SKBSET	STANDARD
		Joystick	3 axis joystick with fine adjustment for X-Y-Z operation	UN-JSTICK
13	Bench stands	Cabinet test table with drawer 71x75x80cm	UN-STAND/960	
		Cabinet test table with drawer 150x75x80cm	UN-STAND/965	
		Pre installation, calibration, handling and standard packing (for sea and airworthy transportation)	SEAPACK/032	

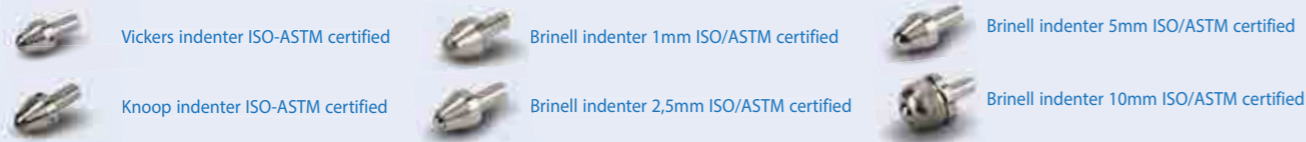


ACCESSORIES

OBJECTIVES



INDENTERS



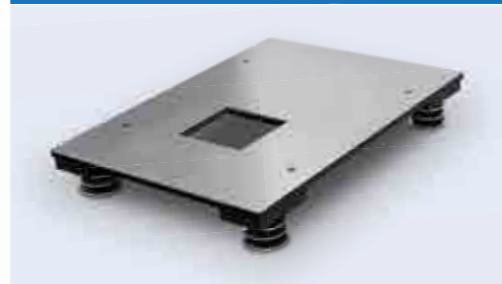
STAGES



CLAMP



VIBRATION ISOLATION STAGE



FIXTURES & VICES



SAMPLE HOLDERS



V-ANVILS



ORDER DETAILS

SOFTWARE

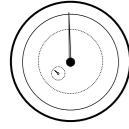
Manual on-screen measurement	UN-MANM	STANDARD
Automatic measurement	UN-AUTOM	STANDARD
Automatic focussing	UN-AUTOFOC	STANDARD
Report configurator	UN-REPORTA	STANDARD
User level management	UN-LEVMAN	STANDARD
Overview / Full view zoom camera + software functionality, field of view 35x50mm up to 200x180mm	UN-OVCAM2C	STANDARD
CHD, SHD, NHD configurator & graphic interface. Requires: indent pattern configurator (TESTPAT01)	UN-PATCHD	STANDARD
Video overlay graphic pattern editor	UN-TESTPAT01	STANDARD
Weld inspection (ISO 9015)	UN-WELDPAT	
Ammunition testing pattern configurator & reporting	UN-SHELLCONF	
Hardness of screw thread decarbonized zone ISO 898-1	UN-ISO898/1	
Automatic edge detection	UN-EDGEDTC	
Automatic contour scanning	UN-CSCAN	
Drawing & measuring application	UN-DRMEAS	
Snapshot function	UN-SNAPSH	STANDARD
Full stage view scanning	UN-STAGESC	STANDARD
KiC crack measurement under load. Palmqvist & Median / Radial fracture toughness	UN-CRKPAP	
2D / 3D hardness chart (scanning/mapping, includes automatic contour scanning)	UN-CSCAN2D3D	
DualView Technology, 2 viewing screens software ; screen, cables, European and US power cables included*	UN-DVTECHSET	
Virtual joystick, on-screen		STANDARD
Advanced 3-axis communication protocol for robotic systems	UN-REMC	
Q-DAS Certified connectivity protocol	UN-QDAS	

*Does not include the screen

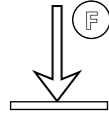


SPECIFICATIONS

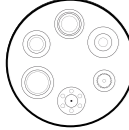
HARDNESS SCALES

	VICKERS ISO 6507 ASTM E384, E92 JIS B 7725 *Extended range	HV0.001, HV0.002, HV0.003, HV0.004, HV0.005, HV0.006, HV0.007, HV0.008, HV0.009, HV0.010, HV0.015, HV0.020, HV0.025, HV0.050, HV0.1, HV0.2, HV0.3, HV0.5, HV1, HV2, HV2.5, HV3, HV4, HV5, HV10, HV20, HV25, HV30, HV40, HV50 *(HV0.0001 - HV0.0009 increases with steps of HV 0.00005)
	K1c Fracture toughness	All Vickers forces & scales
	KNOOP ISO 4545 ASTM E92 JIS Z 2251	HK0.001, HK0.003, HK0.005, HK0.015, HK0.01, HK0.02, HK0.025, HK0.05, HK0.1, HK0.2, HK0.3, HK0.5, HK1, HK2, HK5
	BRINELL ISO 6506, ASTM E10 JIS Z 2243	HB1/1kgf, HB1/1.25kgf, HB1/2.5kgf, HB1/5kgf, HB1/10kgf, HB1/30kgf; HB2.5/6.25kgf, HB2.5/7.8125kgf, HB2.5/15.625kgf, HB2.5/31.25kgf, HB2.5/62.5kgf, HB5/25kgf, HB5/62.5kgf
CONVERSIONS	Conversion to other hardness scales according to ASTM E140, ISO 18265, GB/T 1172	

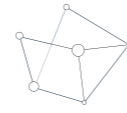
TEST FORCE

	Force application	Multi-load cell, closed loop, force feedback system
	Test forces	0.0001kgf – 62.5 kgf
	Force range per model	FALCON 603 0.010kgf – 10kgf FALCON 608 0.001kgf – 31.25kgf FALCON 611 0.001kgf – 62.5kgf
	Test force tolerance	< 0.25% for test force 100 gr to 62.5 kgf < 0.5% for test force below 100 gr
	Dwell time settings	Default 10 seconds, user defined. Up to 999 seconds

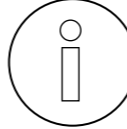
TURRET

	Motorized turret	Ultra-fast, 6 position turret, 2 indenter positions, 4 objective positions
	Objectives	Long working distance 2.5x, 5x, 10x, 20x, 50x, 100x
	Indenters	Certified indenters (ISO/ASTM) available at choice
	Camera 1 (objective)	18 Mpx, HD, 4K+, Machine vision system
	Camera 2 (overview)	Full HD, Optical zoom system, variable FOV 50 x 35mm - 200 x 180mm

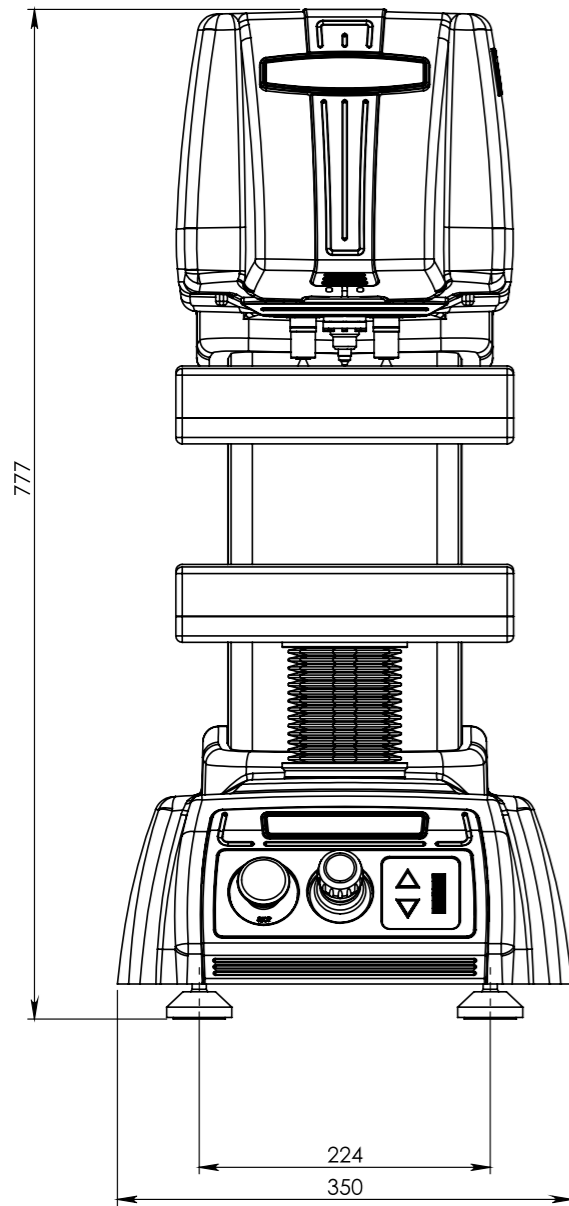
SYSTEM

	Electronic system	High performance embedded controller, i7, mSSD 120 GB, MS Windows® 10 operated
	CNC support	5 Axis CNC controller (for motorized stages) or stage accessories
	Screen(s)	15" portrait mode capacitive touch screen, second screen option
	Display resolution	0.1 HV, HK, 0.5 HB
	Statistics	Total test, max, min, average, range, standard deviation, All in real time after each test
	Hardness conversion	Rockwell, Rockwell Superficial, Vickers, Brinell, Knoop, Leeb & Tensile
	Software	IMPRESSIONS™ V2, work flow system & tester control
	Data storage capacity	Internal and external mSSD, SSD or HDD
	Data output	XML, CSV, Certified for Q-DAS (optional)
	Connectivity	5 USB ports, RJ45 Ethernet LAN, W-LAN, RS-232, Blue Tooth, 5 Axis CNC & motorized X-Y stage connector, Dual HDMI screen connectors
Printer	A4, A3 full color laser printer (optional)	

GENERAL

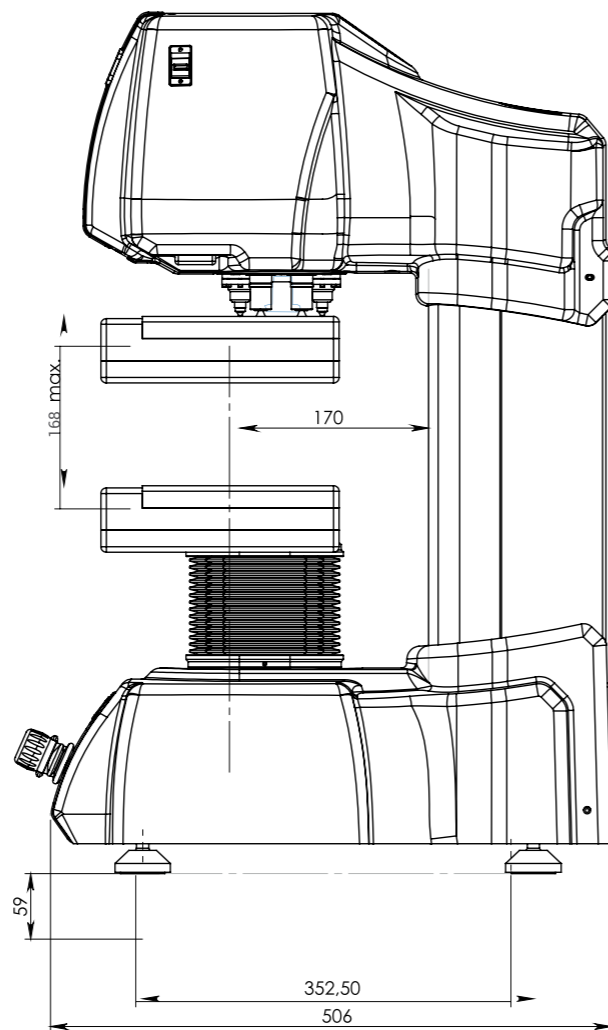
	Machine dimension	777 mm x 350 mm x 506 mm
	Machine weight	80 kg
	Power supply	100VAC to 240VAC, 50/60Hz, single phase
	Operating temperature	10°C to 35°C, non-condensing
	Power consumption	100W
	Humidity	10% to 90%, non-condensing

TECHNICAL DRAWINGS



All dimensions in these drawings are in mm, approximate. Working heights and or workpiece accommodation varies depending on the stages and stage accessories used.

Please contact our sales department for more details.



OTHER MODELS IN THE FALCON RANGE



FALCON 400

Load Cell, closed loop
Micro/Macro Vickers, Knoop
& Brinell Hardness testers
With fine adjustable Z-axis
side handwheel
See brochure B18F400/01



FALCON 450

Load Cell, closed loop
Macro/Micro Vickers, Knoop
& Brinell Hardness tester
With Z-axis handwheel
See brochure B18F450/01



FALCON 500

Multi Load Cell, Closed loop
Fully automatic, free to
configure Micro/Macro Vickers,
Knoop & Brinell Hardness
testers. With ball bearing
motorized Z-axis
See brochure B18F500/01



FALCON 5000

Multi Load Cell, Closed loop
Fully automatic, 8 position
turret, laser positioning.
Micro/Macro Vickers, Knoop
& Brinell Hardness testers.
Descending test head, fixed
work piece position
See brochure B18F5000/01



FALCON 5000XL

Multi Load Cell, Closed loop
Fully automatic, 8 position
turret, laser positioning.
Micro/Macro Vickers, Knoop
& Brinell Hardness testers
Descending test head,
fixed work piece position
See brochure B18F5000XL/01

Changes in products and/or product specifications can emerge due to new technologies and continuous development.

We reserve the right to change or modify specifications of the products without prior notice. We recommend you to contact our sales office for up-to-date information.

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Brochure B18F600/04

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