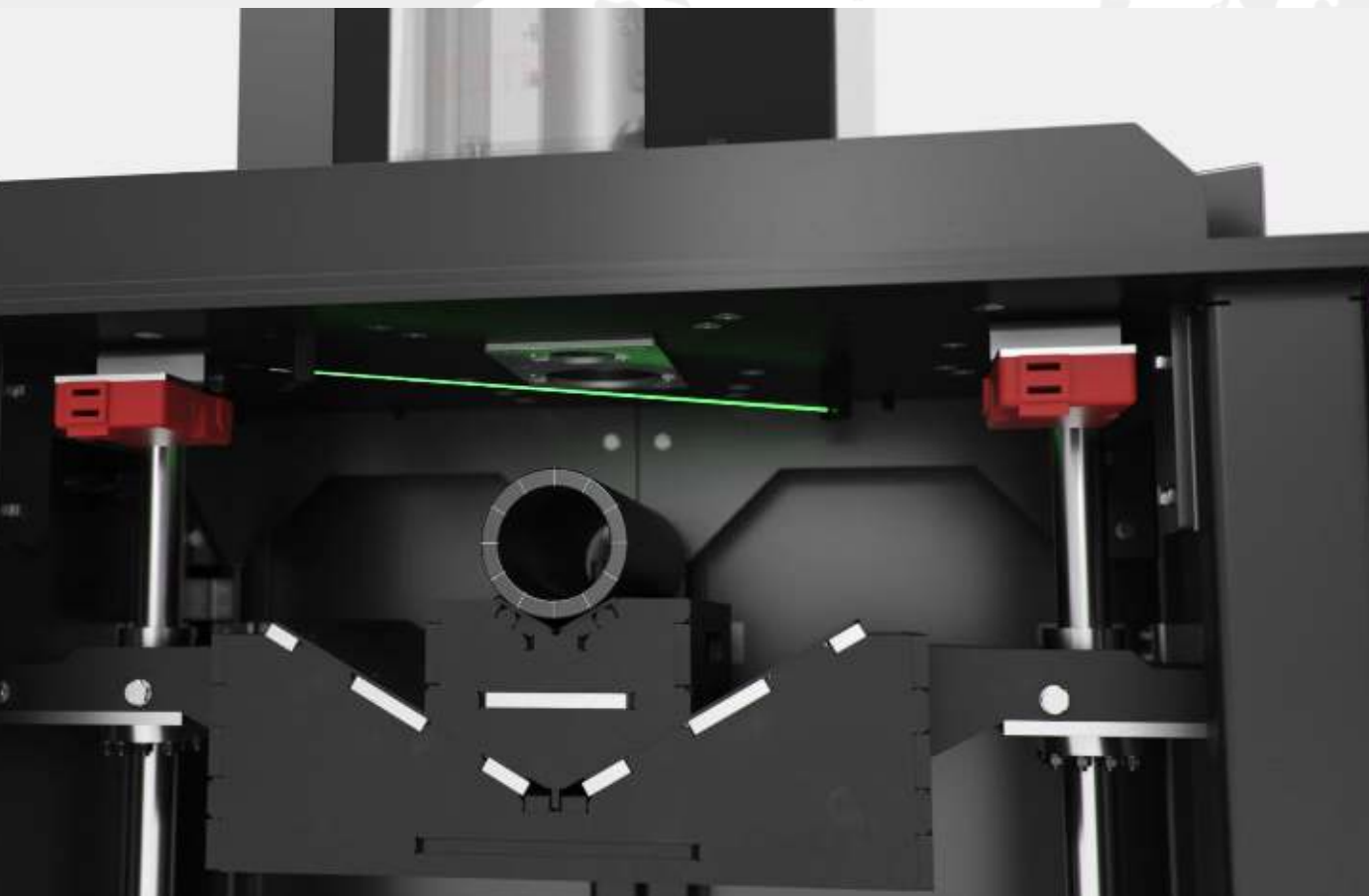


## SIGMA Impact Tester



We help you perform even better

# Highlights SIGMA Impact tester

SCITEQ

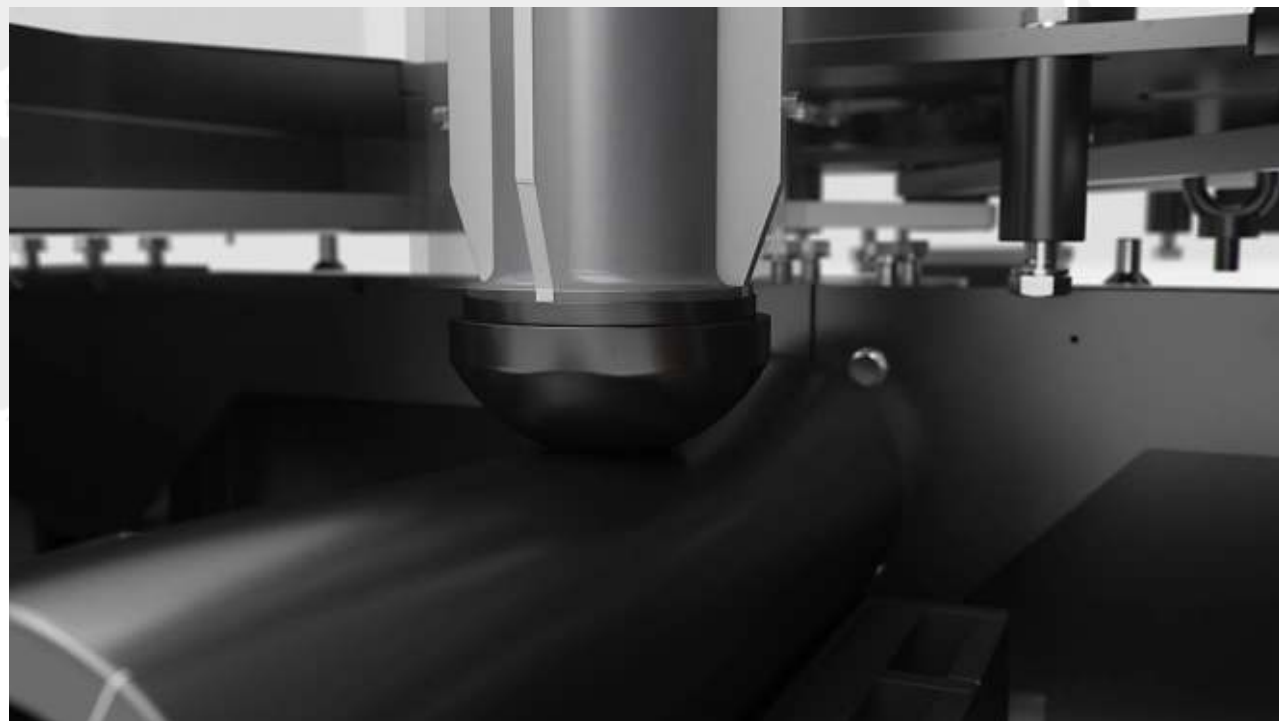
## Highlights

- ✓ *Unique frictionless vacuum lifting*
- ✓ *Speed measurement*
- ✓ *Automatic calibration*
- ✓ *Automatic protection door*
- ✓ *Auto weight detection*
- ✓ *Touch panel SIGMA software with remote access and reporting*
- ✓ *Safe operation*
- ✓ *Extremely durable design*
- ✓ *For pipe sizes DN32-2000*

## Standards

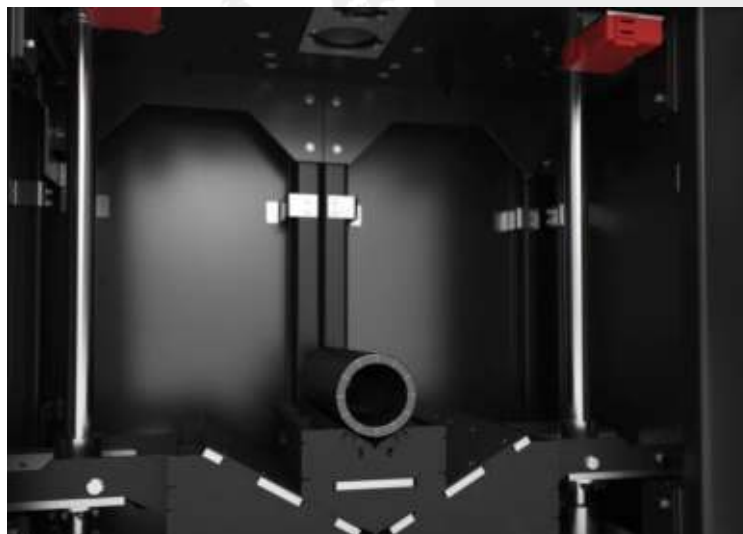
The SIGMA Impact Tester enables you to test according to below standards:  
ISO 3127  
EN 744  
EN 1411  
ASTM D 2444

The impact tester may very well enable you to test according to other standards beside the ones listed above. Please refer to technical specifications in the back of this brochure or contact SCITEQ A/S for more information.



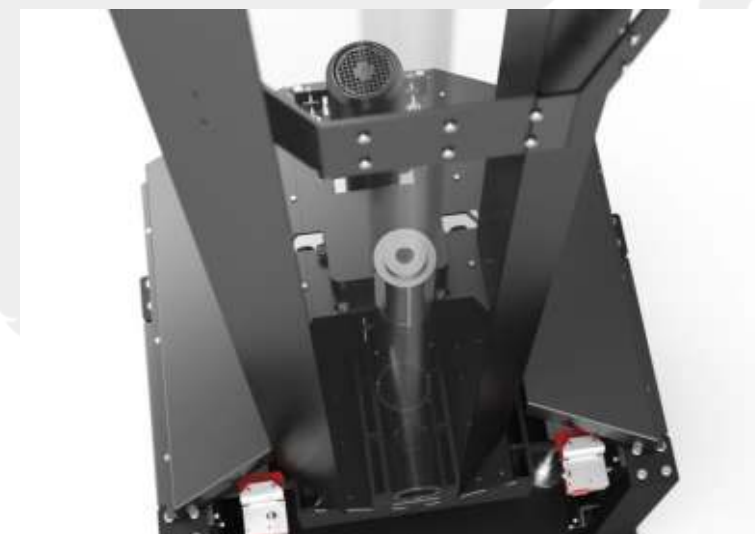
# About SIGMA Impact tester

SCITEQ



## SCOPE

The SIGMA impact tester is developed specifically for plastic pipe producers. The versatile test unit is intended for use in a production environment with particular emphasis on ease and speed of use, low maintenance and safety. The B50 impact tester complies with ISO 3127, EN 744, EN 1411 and ASTM D 2444 and equivalent.



## Construction

The SIGMA Impact Tester is equipped with a unique closed vacuum loop, enabling extremely fast repeat of tests as well as safe and precise adjustment. The system has built-in impact speed measurement to prove the falling velocity. Weights can be changed in seconds and all parameters are easily selected via the user-friendly interface. Automatic door and auto weight detection available as optional.

# About SIGMA Impact tester

SCITEQ

## Auto Weight Recognition

The SIGMA impact tester offers Auto Weight Recognition system as an option. The system ensures loading of correct drop weight by reading the unique ID on the specific drop weight and checking correspondence with the selected type of drop weight. If the drop weight does not match the selected value in the controller, impact is not possible. So

The auto weight recognition will ensure reliable testing on every impact.

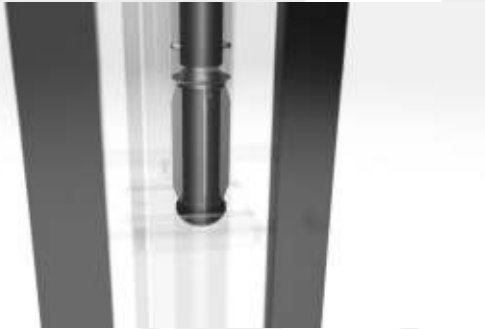
## Automatic doors

The SIGMA impact tester offers Auto Door system as option. The auto door enables the operator to have both hands free and will be able to handling samples and user interface. The test procedure will be even faster and work flow and safe operation is improved.



# Features SIGMA Impact tester

SCITEQ



## Frictionless falling tube

The frictionless environment inside the falling tube ensures accurate results and fewer mechanical parts to maintain.

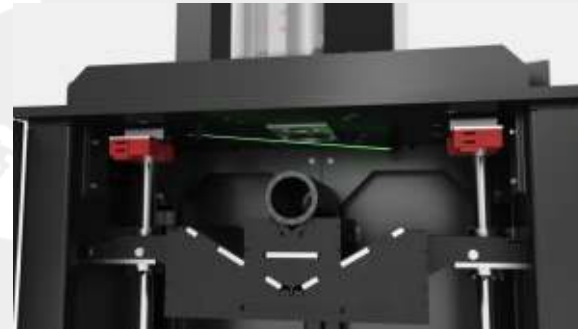
In case of a power failure, the weight automatically descends slowly into its default position.



## Vacuum system

The striker is effortlessly lifted into place inside the falling tube by the vacuum system.

Upon impact, the striker is immediately lifted by the vacuum system, ensuring no double bouncing.



## Easy & safe

A wide range of safety features prevents release of the impact weight, unless the doors are closed. And when performing round-the-clock repeat tests, the striker weight can be locked in its safety position in the top of the tube, allowing the operator to easily turn the sample before safely repeating the test. The test chamber light turns red, in case of an error, alerting the user that something is wrong.



## Automatic calibration

Starting up the system auto-calibrates, giving you 100% reliable and repeatable performance.

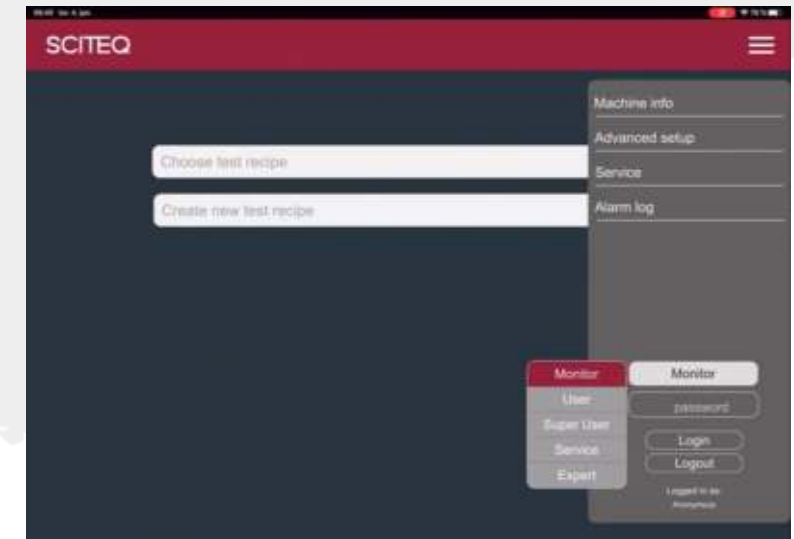
To prove each test, the impact speed monitoring system provides you with all the information you need, including the speed of the striker.



## About SIGMA interface



SCITEQ					
Impact	Height [mm]	Weight	Theoretic speed [m/s]	Speed [m/s]	Status
1 - s1.1	1000.1	#001 - 1600.0g - DN100	4.42	4.28	✓
2 - s1.2	1049.9	#001 - 1600.0g - DN100	4.53	4.39	✓
3 - s1.3	1100.1	#001 - 1600.0g - DN100	4.64	4.49	✓
4 - s1.4	1150.0	#001 - 1600.0g - DN100	4.74	4.59	✓
5 - s1.5	1200.1	#001 - 1600.0g - DN100	4.84	4.67	✓



## Web browser based

## Features

With superior speed measuring system, measuring drop speed with a resolution in micro seconds in - and the automatic calculation of H50 and TIR, SIGMA software is best in class.

The Loading and unloading of drop weight is made smart and safe from the software. The software will slowly lower the drop weight, enabling the operator to safe and easy remove or load the drop weight.

## Recipe & user levels

The four different user levels enables the main operator to pre-program test recipes, open to all users, while ensuring fast and reliable testing. Drop height, impact quantity and drop weight is entered in the recipe for fast test repetition.

# Dimensions SIGMA Impact tester – model 630

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## Dimensions

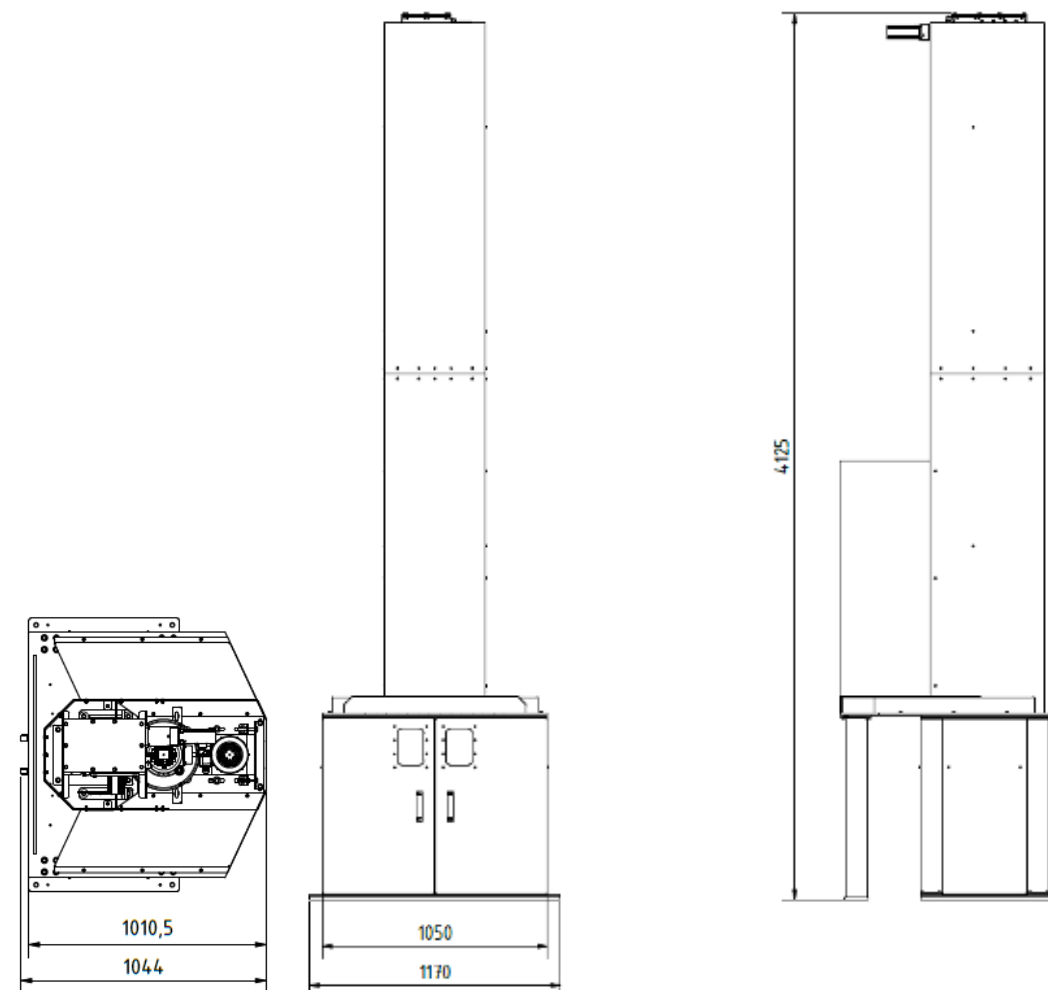
SIGMA Impact tester model 630

External dimensions: W1170 x D1044 x H4125 mm.

Weight approx. 840 kg.

Shipped and delivered in 3 colli.

NOTE! Please refer to table on following page for dimensions according to above drawings.



# Dimensions SIGMA Impact tester – model 1400

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## Dimensions

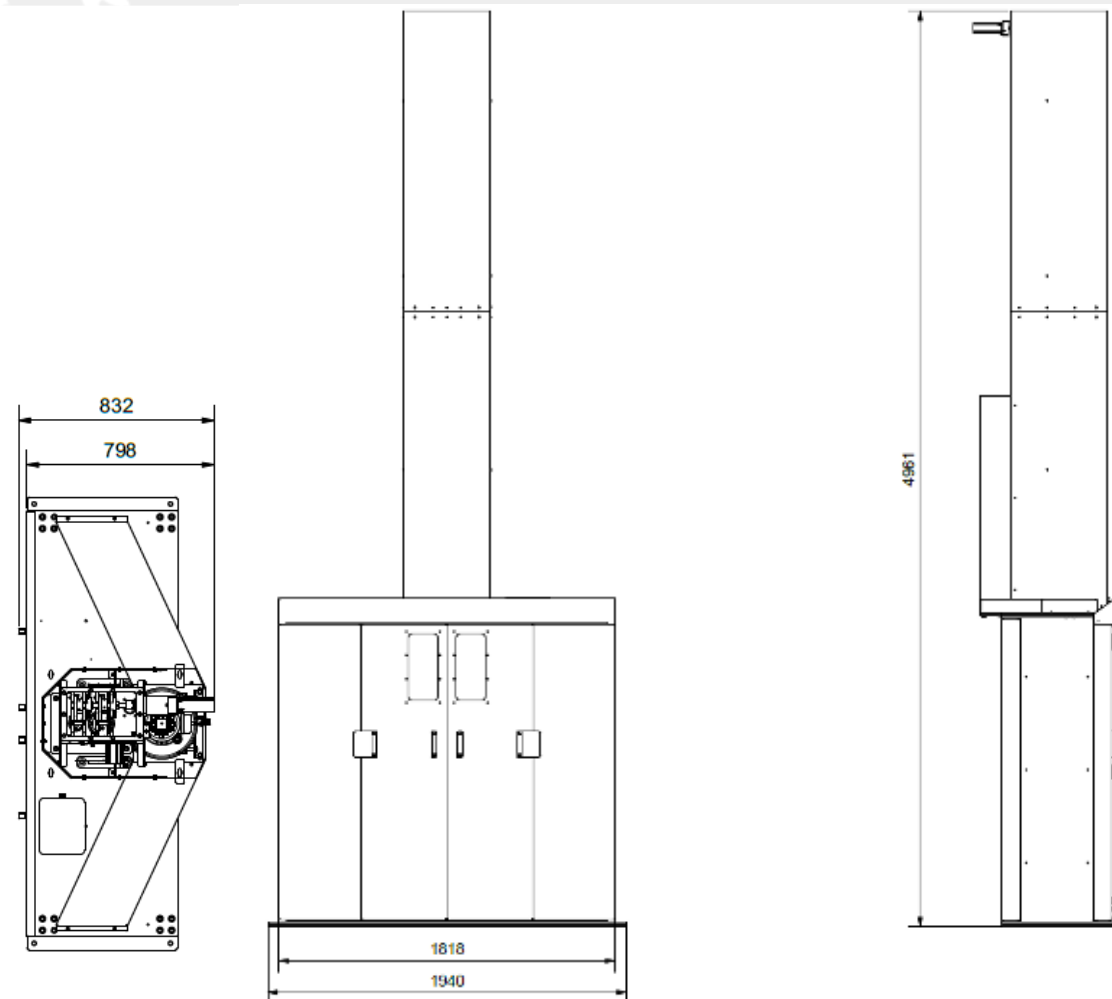
SIGMA Impact tester model 1400

External dimensions: W1940 x D832 x H4961 mm.

Weight approx. 1260 kg.

Shipped and delivered in 3 colli.

NOTE! Please refer to table on following page for dimensions according to above drawings.





# Dimensions SIGMA Impact tester – model 2000

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## Dimensions

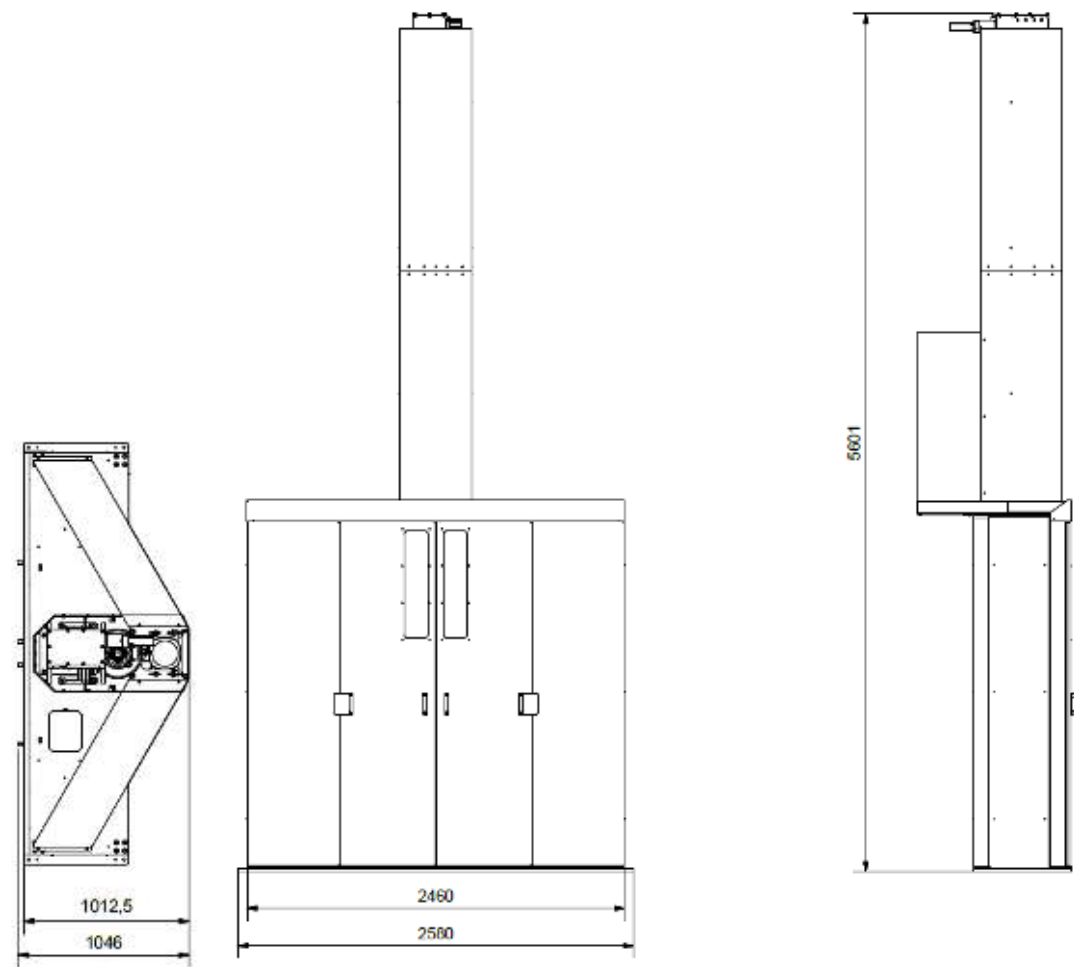
SIGMA Impact tester model 2000

External dimensions: W2580 x D1046 x H5601 mm

Weight approx. 1900 kg.

Shipped and delivered in 3 colli.

NOTE! Please refer to table on following page for dimensions according to above drawings.



# Technical Specification SIGMA Impact tester



	Standard models		
	Model 630	Model 1400	Model 2000
Pipe range [mm]	DN20-DN630*	DN20-DN1400*	DN20-DN2000*
Test room dimensions WxHxD [mm]	720 x 700 x 470	1490 x 1420 x 470	2130 x 2200 x 470
Falling height [mm]	300-2000**	300-2000**	300-2000**
External dimensions LxWxH [mm]	1170 x 1012 x 4120	1820 x 760 x 4950	2580 x 1010 x 5800
Weight [kg]	Approx: 840	Approx: 1260	Approx: 1900
Falling tube diameter [mm]	DN100 and DN55	DN100 and DN55	DN100 and DN55
Striker mass range [kg]	0,25-16 ***	0,25-16 ***	0,25-16 ***
Testing according to	ASTM D2444, EN13476, EN744, EN1411 & ISO3127	ASTM D2444, EN13476, EN744, EN1411 & ISO3127	ASTM D2444, EN13476, EN744, EN1411 & ISO3127
Falling speed accuracy	Better then 95% of the theoretical speed	Better then 95% of the theoretical speed	Better then 95% of the theoretical speed
Falling speed measuring	√	√	√
SIGMA UI control *****	√	√	√
Automatic door	Optional	N/A	N/A
Auto Weight Detection	Optional	Optional	Optional
Power supply	3x 400 V, 50/60 HZ****	3x 400 V, 50/60 HZ****	3x 400 V, 50/60 HZ****

\*Testing on DN20-DN31 requires additional anvil.

\*\*Falling height can be customized for up to 5000 mm.

\*\*\* Other supply voltage on request

\*\*\*\* The maximum striker mass capacity is reduced as a function of increase in altitude.

\*\*\*\*\* SIGMA UI browser based software mandatory. Operation from any browser enabled device.

# Technical Specification SIGMA Impact tester

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	Standard models		
	Model 630	Model 1400	Model 2000
Power consumption	Approx: 1,5 KW, 2,2 A	Approx: 1,5 KW, 2,2 A	Approx: 1,5 KW, 2,2 A
Operation temperature [°C]	1-40	1-40	1-40
Storage temperature [°C]	-20 – 50	-20 – 50	-20 – 50
Air supply	4-8 bar	4-8 bar	4-8 bar
Calibration certificate	✓	✓	✓
CE Approval*	✓	✓	✓

\*Machine can be supplied with UL and/or CSA approved parts.





## Strikers

SCITEQ design strikers according to specific test standards. Weights between 0,250 kg and 16 kg with striker heads acc. to standards are available.



## V-blocks

The V-blocks facilitate testing on pipe diameters as small as  $\varnothing 32$  up to  $\varnothing 2000\text{mm}$  (dependant on model). Other inserts are configured on request.



## Extra falling height

Falling height can be customized for up to 5000 mm.



## Storage rack

SCITEQ supplies storage for strikers designed according to needs and dimensions of strikers.

## Essential Equipment



### Thermo Tank

The SCITEQ ECO line or SIGMA thermo tanks are for precise conditioning of the samples from 0°C. Available in a wide range of sizes.



### SCITEQ Conditioning Chamber

SCITEQ supplies customized conditioning chambers for a temperature range of -25 to 20 °C. Easy to configure and scale according to your needs.

## Associated Equipment



### SCITEQ Lab saw

For preparing plastic pipe samples by making a parallel cut and chamfering edge in one go. Conveyor with auto feeding. Pipe diam. from Ø32 mm to Ø630 mm.

The solution allows for the use of predefined recipes, making it easy to get started no matter the material, length, thickness or diameter of the pipe.





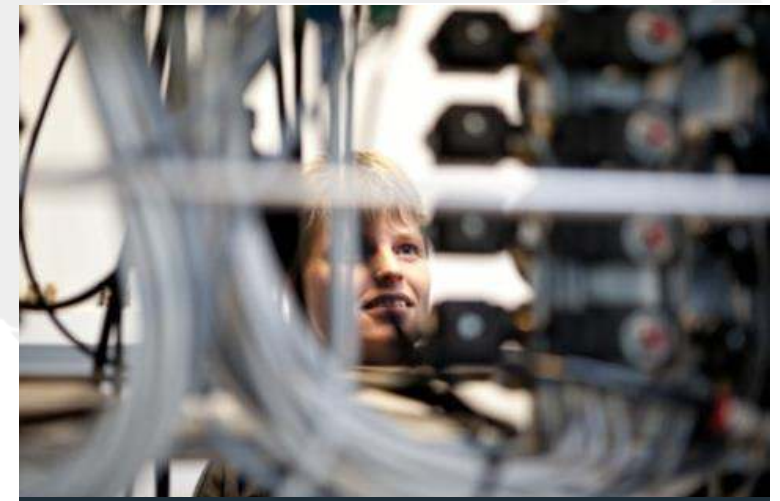
## Installation & training

SCITEQ's trained service technicians perform onsite installation of your new SCITEQ equipment as well as onsite or remote training of your operating personnel who will be using the equipment.



## SCITEQ Care

You will find the level of service suitable for your test setup with SCITEQ Care. SCITEQ service engineers will visit you annually to perform the best service and calibration. With SCITEQ Basic, More or All Care package you gain access to a long list of advantages, discounts and free support from SCITEQ skilled technician. [Learn more about SCITEQ Care](#)



## Support online & on-site

SCITEQ offers online and on-site support on all SCITEQ products, for fast and effective problem solving, training, setup, etc. If you have an unforeseen challenge or you need advise asap, you can contact [service@sciteq.com](mailto:service@sciteq.com) or call us for urgent support.