



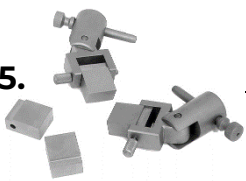



TOOLS FOR PEELING TESTS – TAKEOFF - ADHESION



Tools designed to perform **Peel Tests at 90° - 180° - Ascending Drum - Peeling Rollers/Drums - Double Peeling Rollers...** and measure the bond strength of **adhesive tapes, sandwich panels, metal/metal adhesives...**, these tools being incorporated in a Universal Testing Machine.

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90° Peel/Adhesion Test Fixtures Dpb-90/10 series

Devices to perform peel tests and measure the **strength of the bonding of adhesive tapes** at an angle of 90°, these testing tools being incorporated in a Universal Testing Machine.

APPLICABLE STANDARDS

ASTM-B571-Nr.11, EN28510, ISO 8510-1, ASTM-D2861-Fig.A, DIN EN1939 Fig.B1, ASTM-D3330, GOST-26246, ASTM-D6862, ASTM-D6252

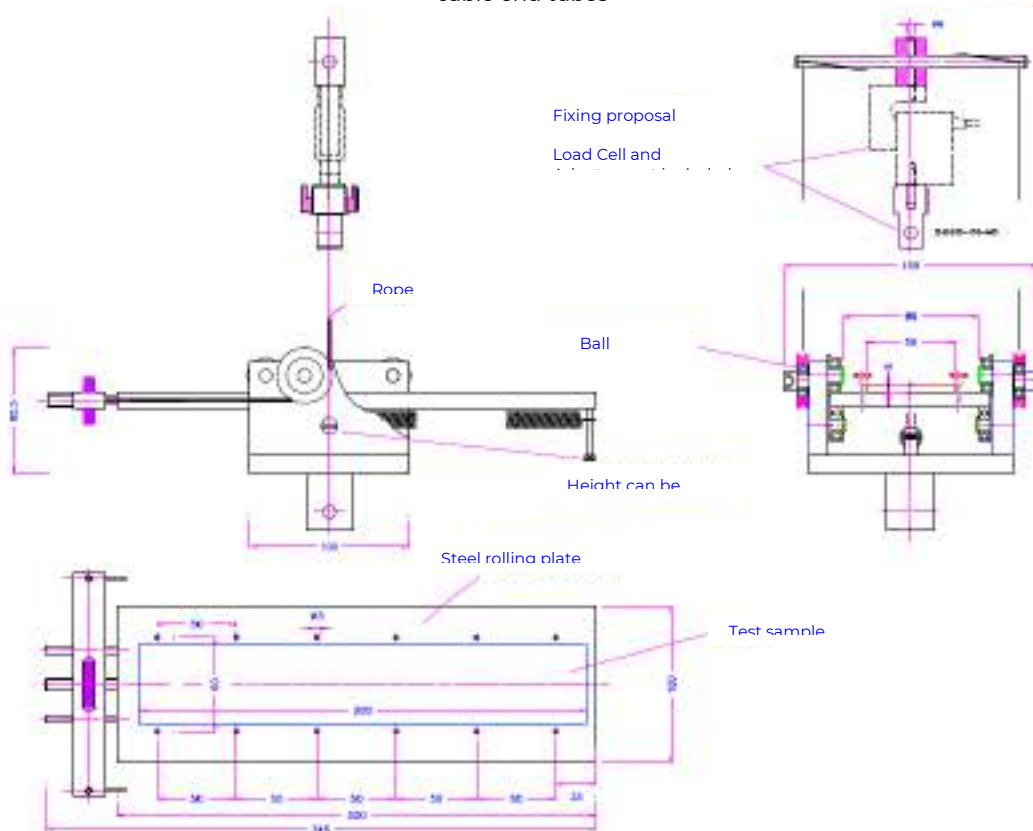
GENERAL INFORMATION

This test method covers the determination of the comparative peel / peel properties (bond strength with peel point in the center) of adhesive tapes on a horizontal sliding track and with a peel angle of 90° constantly maintained during the peel test. /takeoff. The testing machine to be used must be capable of maintaining the constant speed rate indicated in the standard that is being met.

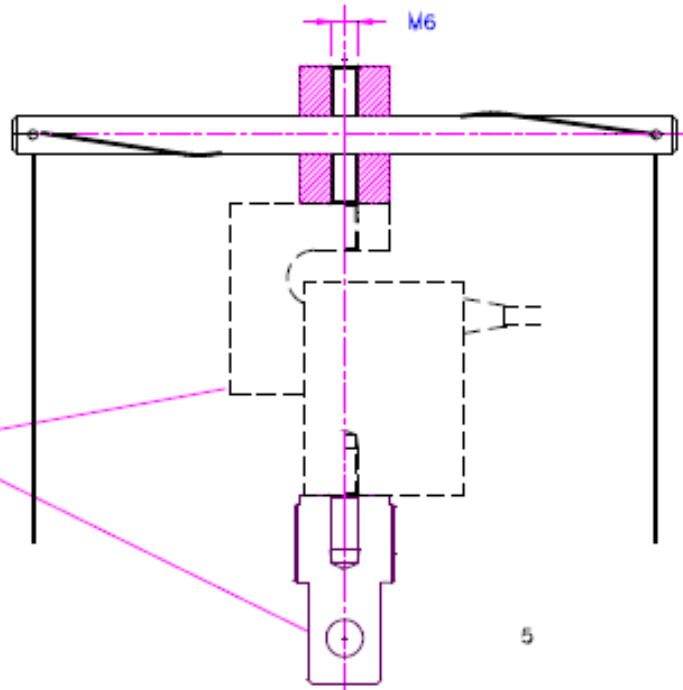
90 ° Peel Test Device for Adhesive Tapes model Dpb-90/10

Model:	Dpb-90/10
Maximum load:	5 kN
Coupling:	M6 (higher) y 15,9 mm(lower) Other couplings on request
Maximum sample width:	Max. 50 mm
Sample length maximum:	Max. 280 mm
Body:	Steel, nickel plated
Temperature range:	0 – 70 °C Other temperature ranges on request
Weight:	5.4 kg

Scope of supply: Accessory including mounting bar, cables and cable end tubes

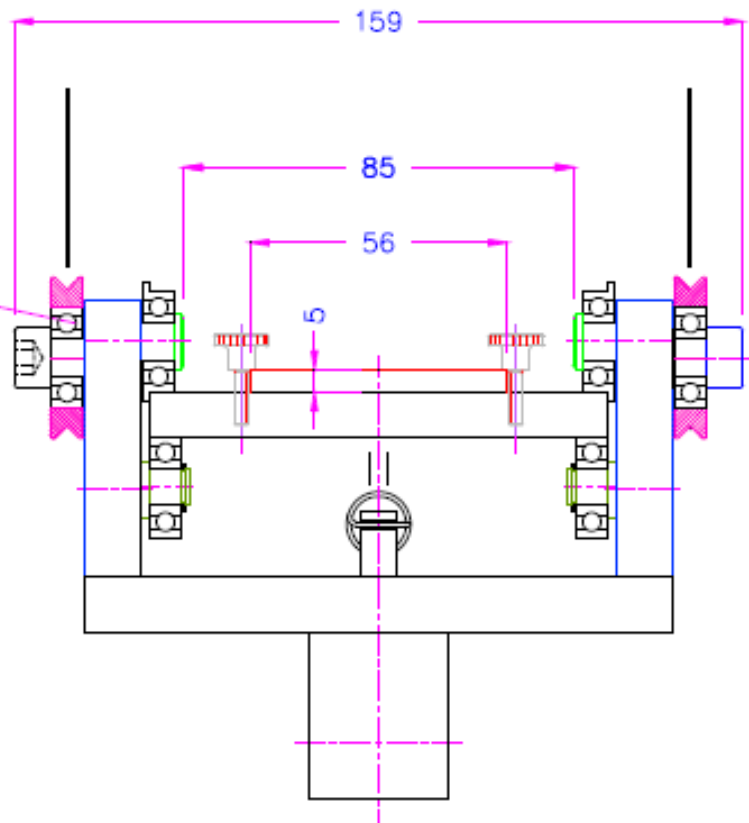


Fixing proposal
Load Cell and
Adapters not included
Ball bearings



Ball bearings

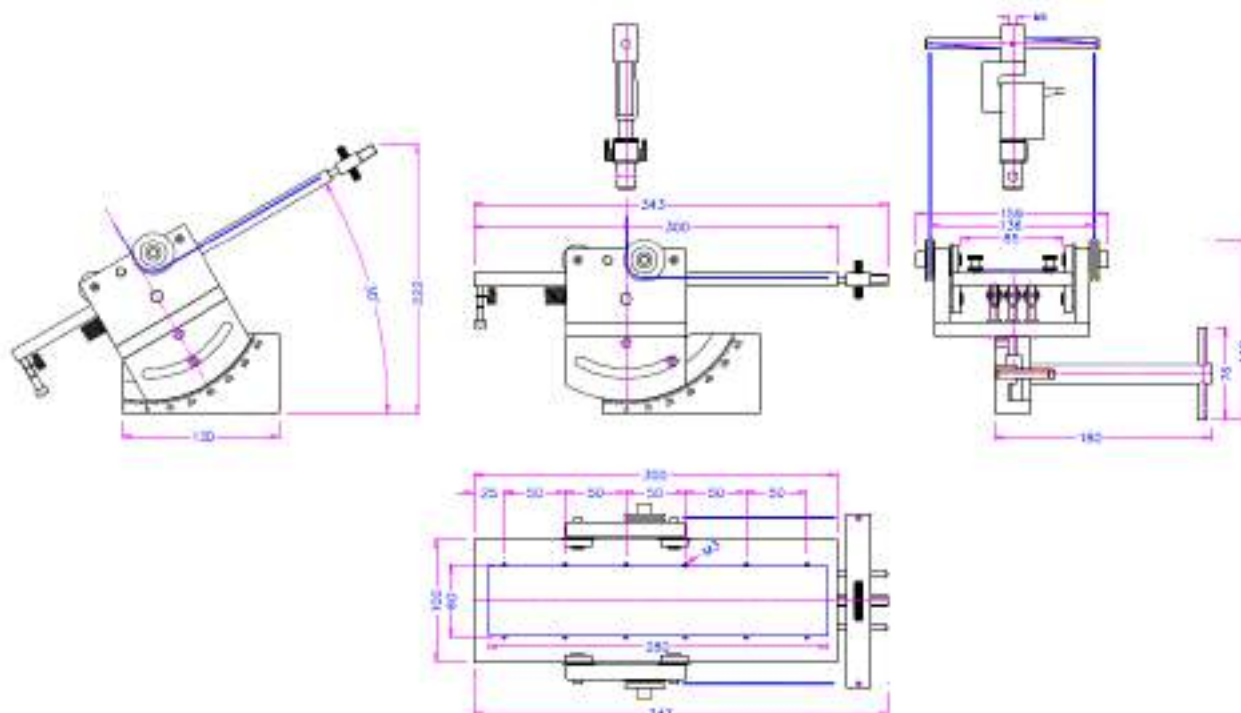
Height can be adjusted



90° Peel Adhesion Test Device model Dpb-90-30/10

Like Dpb-90/10, but with adjustable stripping angle $\pm 30^\circ$

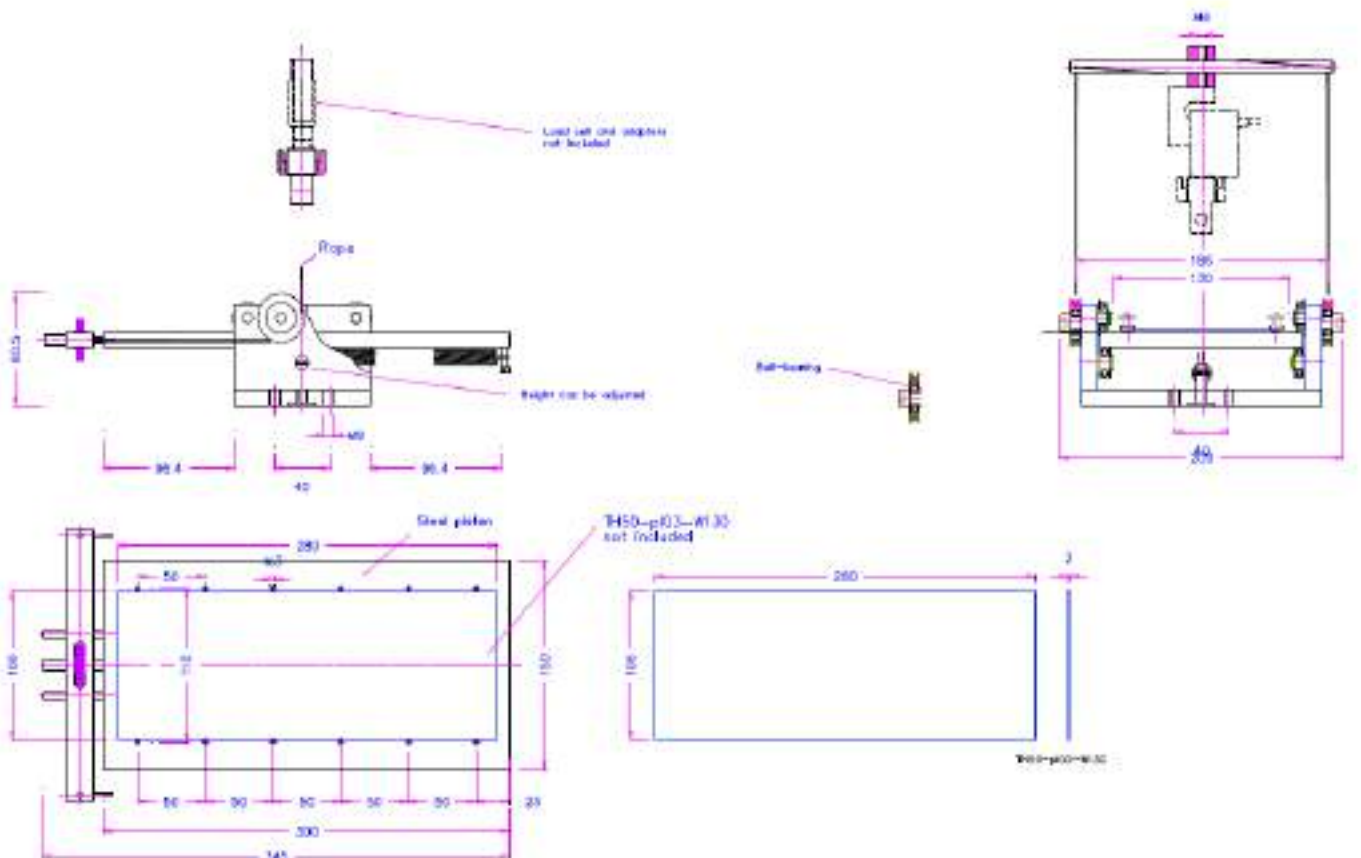
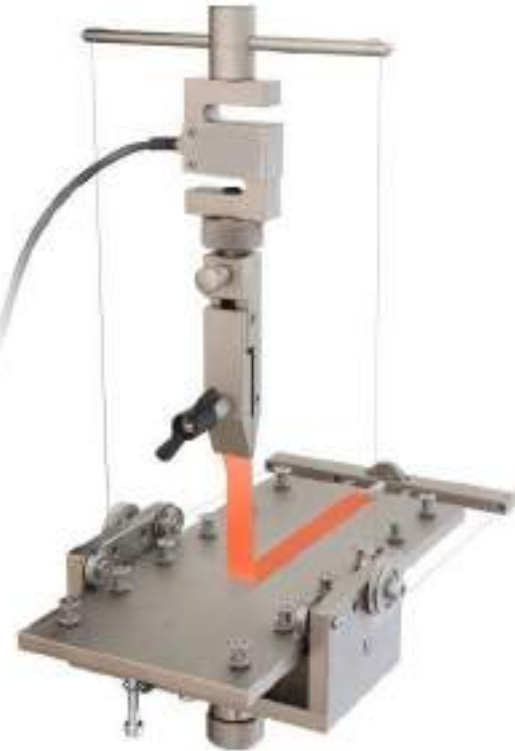
Model:	Dpb-90-30/10
Maximum load:	5 kN
Coupling:	M6 (higher) y 15,9 mm (lower) Other couplings on request
Maximum sample width:	Max. 50 mm
Sample length maximum:	Max. 280 mm
Body:	Steel, nickel plated
Temperature range:	0 – 70 °C Other temperature ranges on request
Weight:	7,6 kg
Scope of supply:	Accessory including mounting bar, cables and cable end tubes



90 ° Peel/Adhesion Test Device model Dpb-90/10-100

Like Dpb-90/10, but with slide track with width for samples up to 100 mm

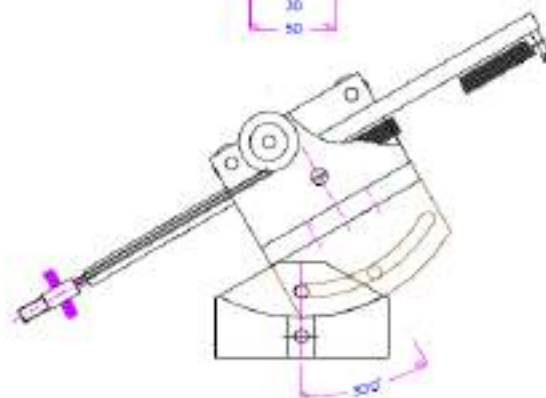
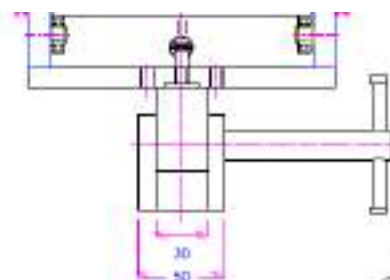
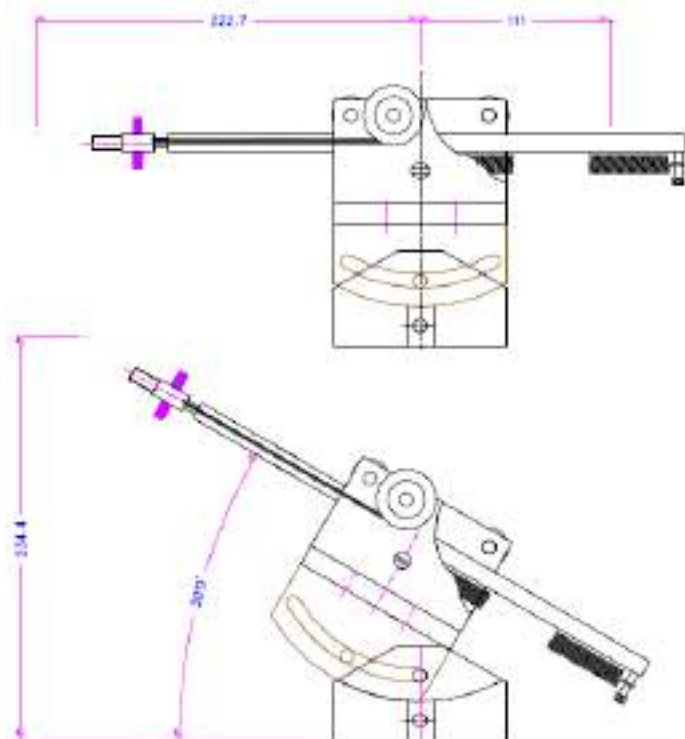
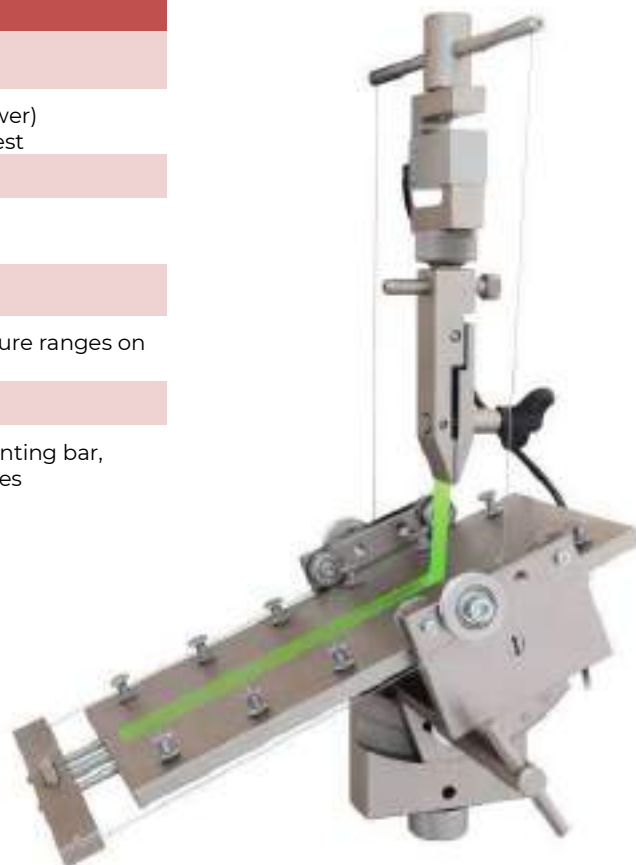
Model:	Dpb-90-/10-100
Maximum load:	5 kN
Coupling:	M6 (higher) y 15,9 mm(lower) Other couplings on request
Maximum sample width:	Max. 100 mm
Sample length maximum:	Max. 280 mm
Body:	Steel, nickel plated
Temperature range:	0 – 70 °C Other temperature ranges on request
Weight:	7,6 kg
Scope of supply:	Accessory including mounting bar, cables and cable end tubes



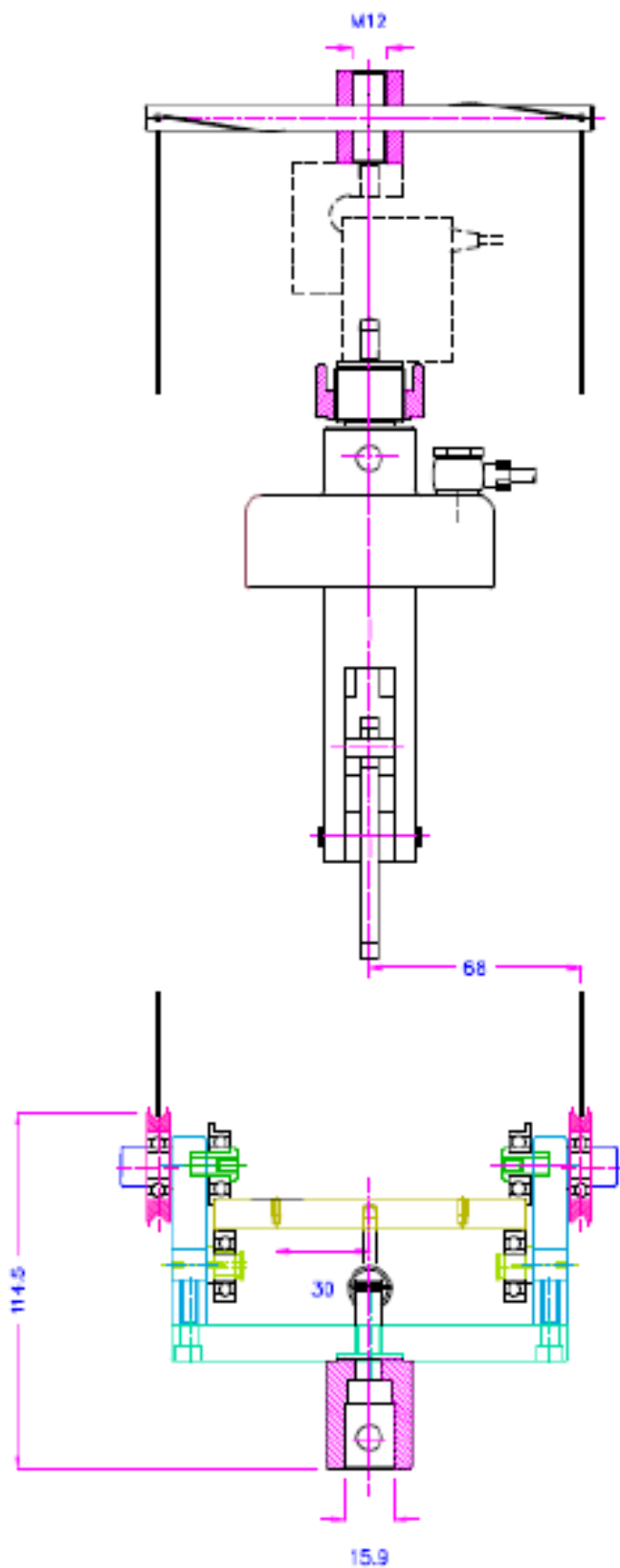
90 ° Peel Test Device for Adhesive Tapes model Dpb-90-30/10-100

Like Dpb-90 / 10-100, but with adjustable stripping angle $\pm 30^\circ$

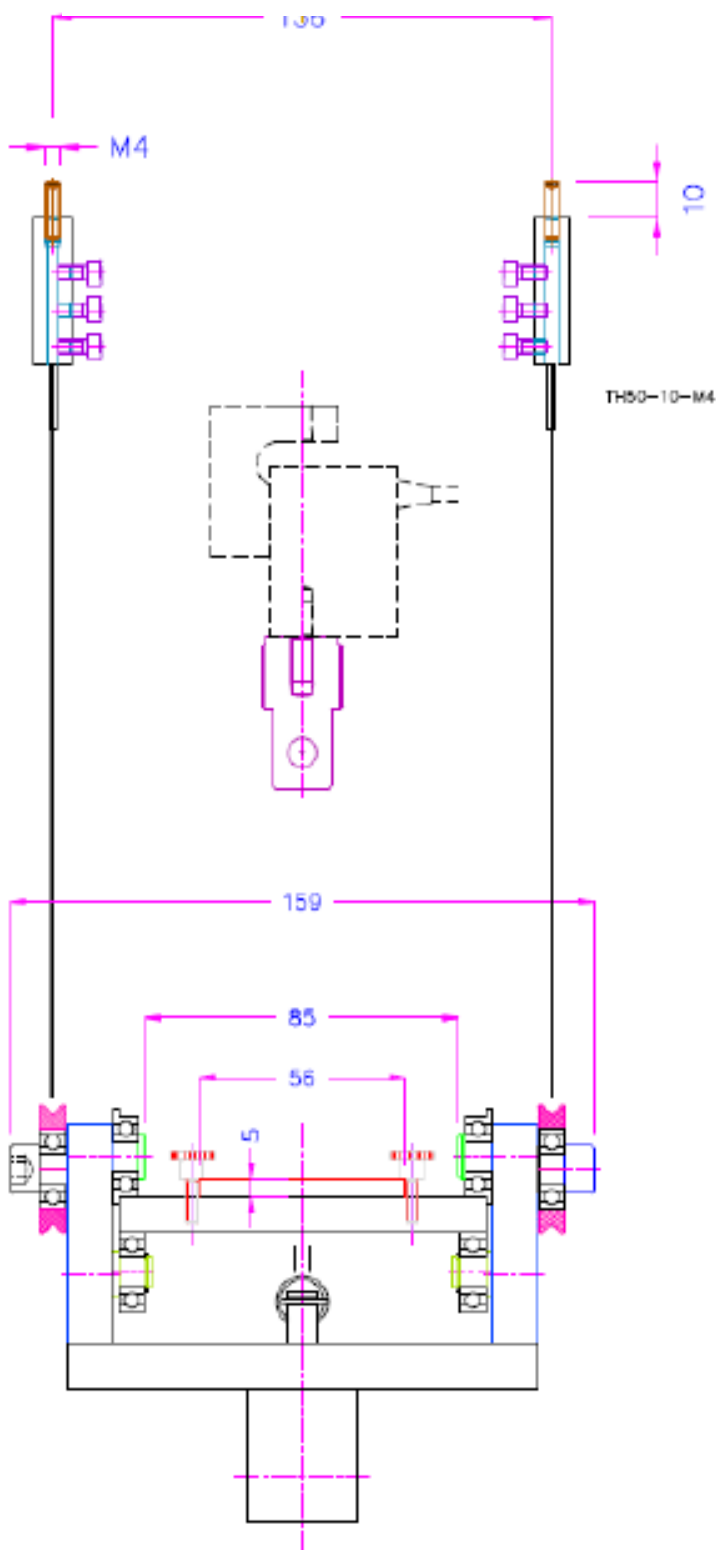
Model:	Dpb-90-30/10-100
Maximum load:	5 kN
Coupling:	M6 (higher) y 15,9 mm(lower) Other couplings on request
Maximum sample width:	Max. 100 mm
Sample length maximum:	Max. 280 mm
Body:	Steel, nickel plated
Temperature range:	0 – 70 °C Other temperature ranges on request
Weight:	7,6 kg
Scope of supply:	Accessory including mounting bar, cables and cable end tubes



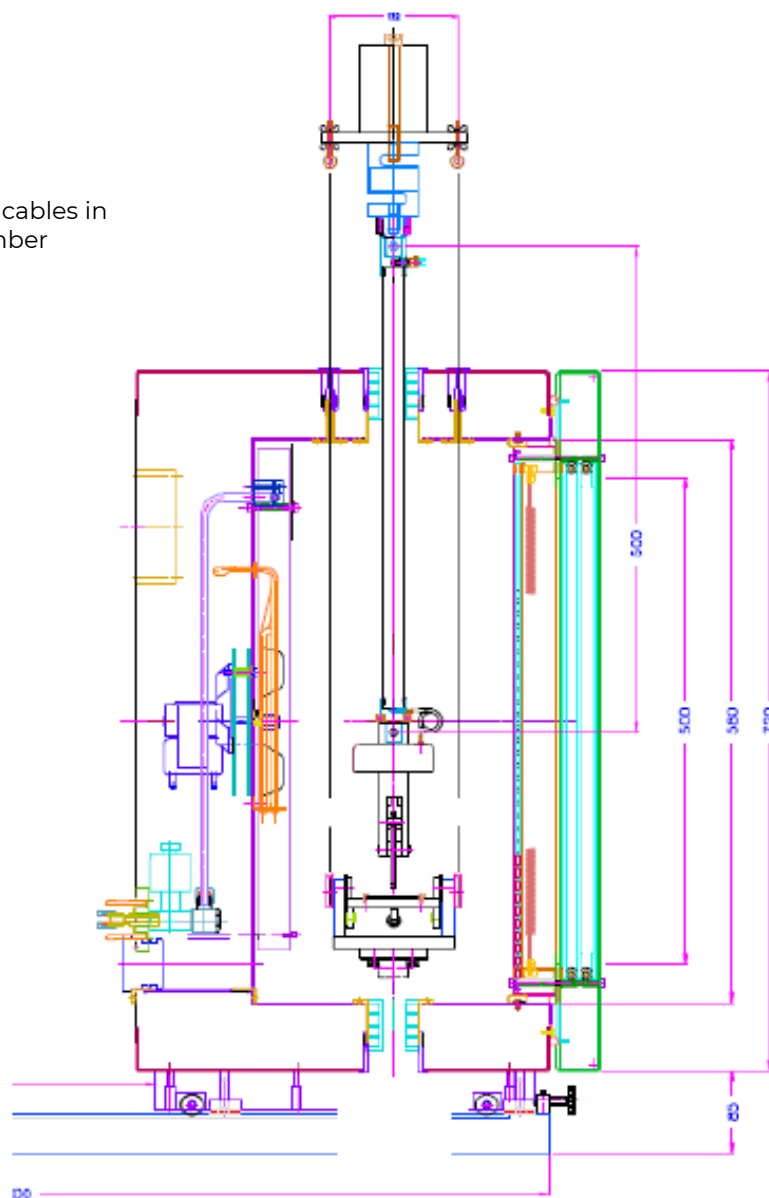
Cable fixing proposal
behind the load cell
(standard)



Cable fixing proposal
on the crosshead (crossbar)
(special)



Proposal for fixing cables in temperature chamber
(special)



Top grip recommendations for clamping the specimen:



MMP/2
2 kN



MTP/100
100 N



MDM/SMALL
100N

90° Rotating German Wheel Peel Fixtures PR90° series

Simple rollers for **tests Adhesion of Adhesive Tapes unrolling at 90°** The rollers allow to couple rolls of adhesive tapes to test and determine the adhesion force at 90°, unrolling on itself in a Dynamometer at a certain speed.



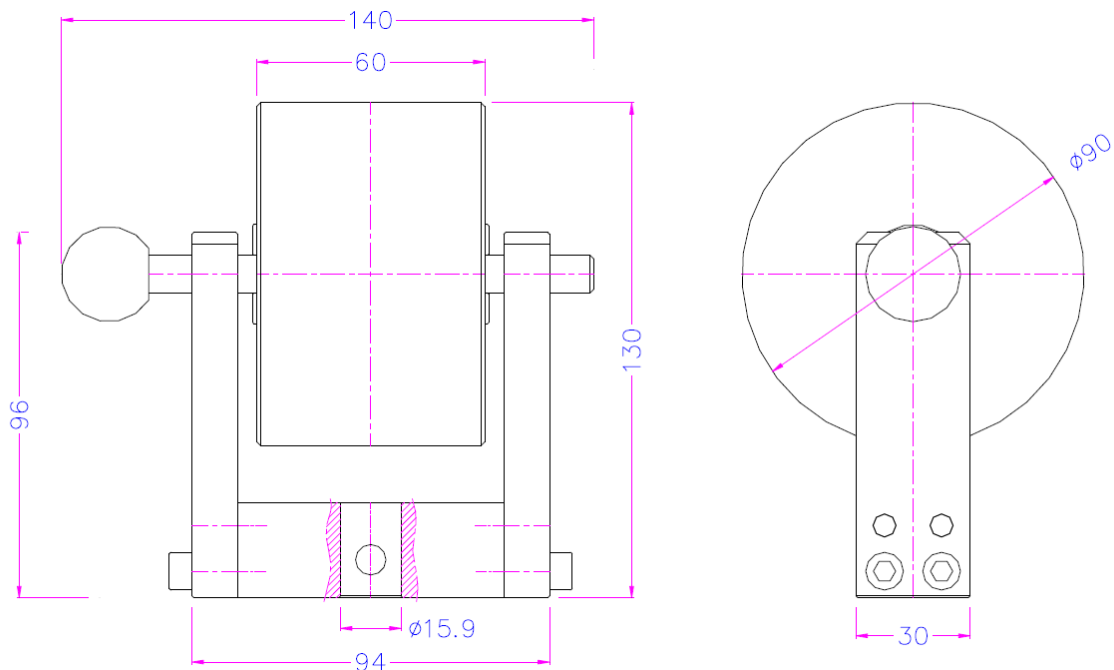
APPLICABLE STANDARDS

DIN 53357-B, ISO 6133, IPC-TM-650 2.4.9

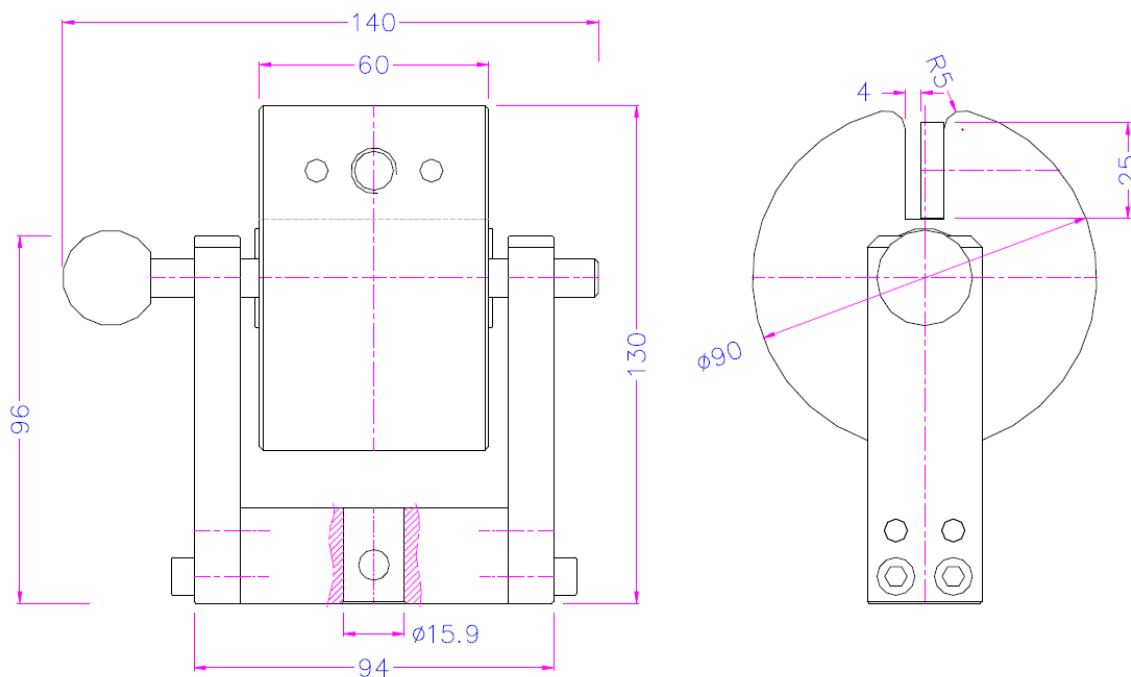
GENERAL INFORMATION

For testing the bond strength of tapes, plastic films and paper, laminated release coatings, at a 90 ° peel angle

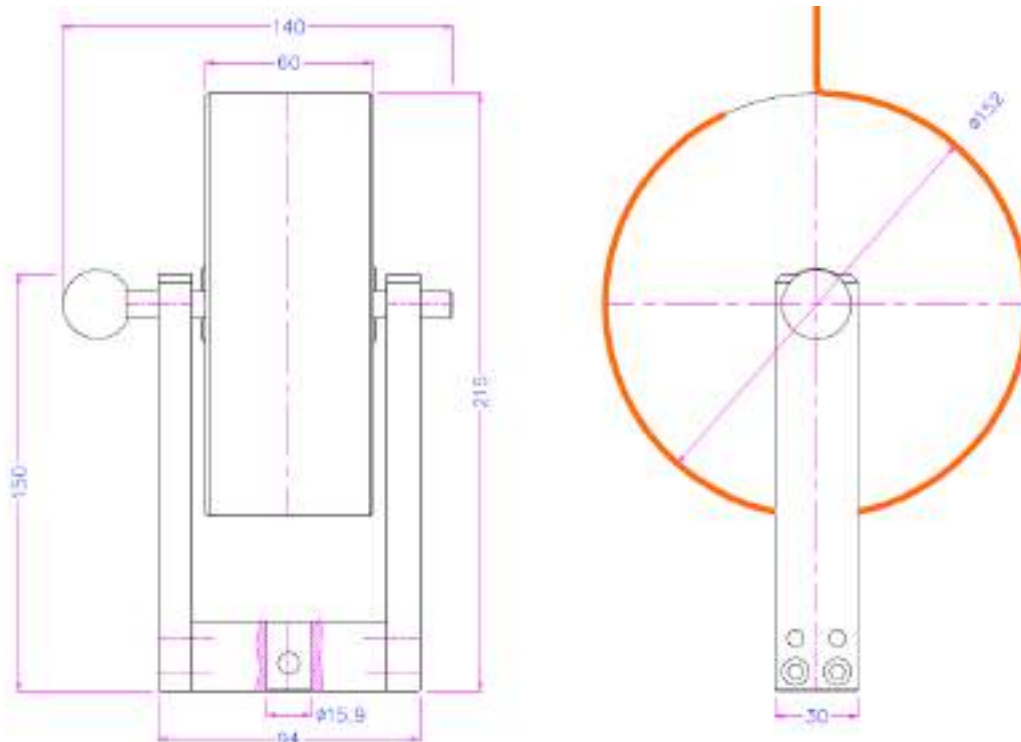
Model:	PR90°-90
According to Standard:	DIN 53357-B Testing of plastic sheets; Adhesion test
Maximum load:	4 kN
Roller Ø:	90 mm (3.54 in)
Coupling:	15,9 mm Other couplings on request
Weight:	2 kg
Body:	Anodized Aluminium
Support:	Steel
Temperature range:	0... + 70 ° C Other temperature ranges on request
Scope of supply:	1 Test roller



Modelo:	PR90°-90-KL
With a clamp to fix the sample to be tested.	
According to Standard:	DIN 53357-B Testing of plastic sheets; Adhesion test
Maximum load:	4 kN
Roller Ø:	90 mm (3.54 in)
Coupling:	15,9 mm Other couplings on request
Weight:	2,05 kg
Body:	Anodized Aluminium
Support:	Steel
Temperature range:	0... + 70 ° C Other temperature ranges on request
Scope of supply:	1 Test roller with clamp



Modelo:	<u>PR90°-152</u>
According to Standard:	ISO 6133 Rubber and Plastics - Multiple Peak Analysis traces obtained in the determination of the tear strength and bond strength IPC-TM-650 2.4.9 Peel strength, flexible dielectric materials
Maximum load:	4 kN
Roller Ø:	152 mm (6 in)
Coupling:	15,9 mm. Other couplings on request
Weight:	3,30 kg
Body:	Anodized Aluminium
Support:	Steel
Temperature range:	0 ... +70°C Other temperature ranges on request
Scope of supply:	1 Test Roller

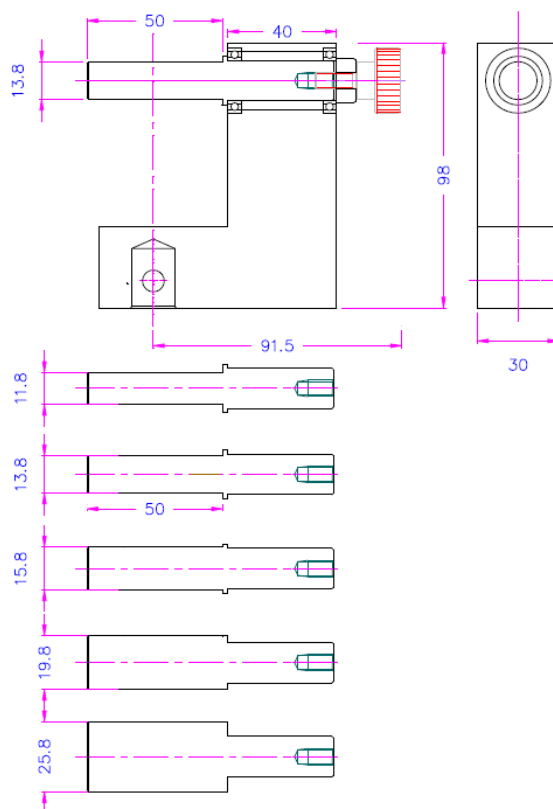


*** Examples of custom solutions:**



Model: PL90°-SH-S21
Single support version

Peel test device with interchangeable rollers: 11.8, 13.8, 15.8, 21.8, 25.8 mm Ø
 Weight: 1 kg



Model: PL90°-38-S

Interchangeable Rollers of 11, 14, 19, 25 mm Ø
Roller width 38 mm

Test tools Double Roller Peeling/Adhesion at 90° DP2 model

Fixtures to perform detachment tests and measure the bond strength of Metal / Metal joined by an adhesive, these tools being incorporated in a Universal Testing Machine.



APPLICABLE STANDARDS

DIN 53289 - EN 1464 - ISO 4578 – ASTM 3167

GENERAL INFORMATION

Test fixtures designed to perform peel tests and determine the adhesion force in a Universal Testing Machine at a given speed.

- Constructed of anodized Aluminum and Steel
- Temperature ranges between 0 and + 130°C (other temperatures on request)

MODEL	FEATURES	CAPACITY
DP2/25	Rollers 25 mm Ø and 30mm wide	10 kN
DP2/25,4	Rollers 25.4 mm Ø and 25.4mm wide	10 kN
DP2/60-45°-20	Rollers 20 mm Ø and 60mm wide (45°variable)	16 kN
DP2/60-45°-25	Rollers 25 mm Ø and 60mm wide (45°variable)	16 kN
DP2/100-45°-20	Rollers 20 mm Ø and 160mm wide (45° variable)	12 kN
DP2/100-45°-20	Rollers 25 mm Ø and 160mm wide (45° variable)	12 kN
DP2/160-45°-20	Rollers 20 mm Ø and 160mm wide (45° variable)	8 kN
DP2/160-45°-25	Rollers 25 mm Ø and 160mm wide (45° variable)	8 kN
DP2V/22-50	Rollers 20 mm Ø and 60mm wide	12 kN
DP2V/22-25	Rollers 25 mm Ø and 60mm wide	12 kN

COMMON FEATURES

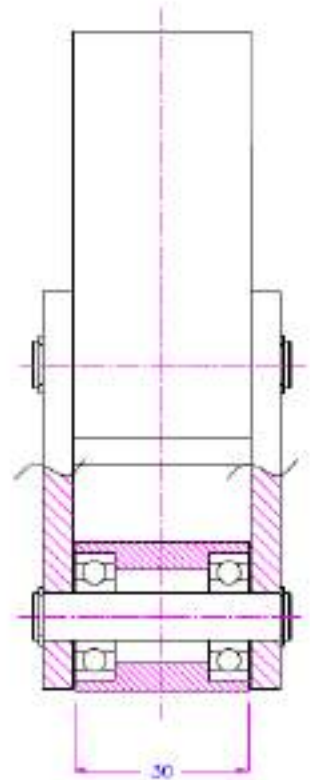
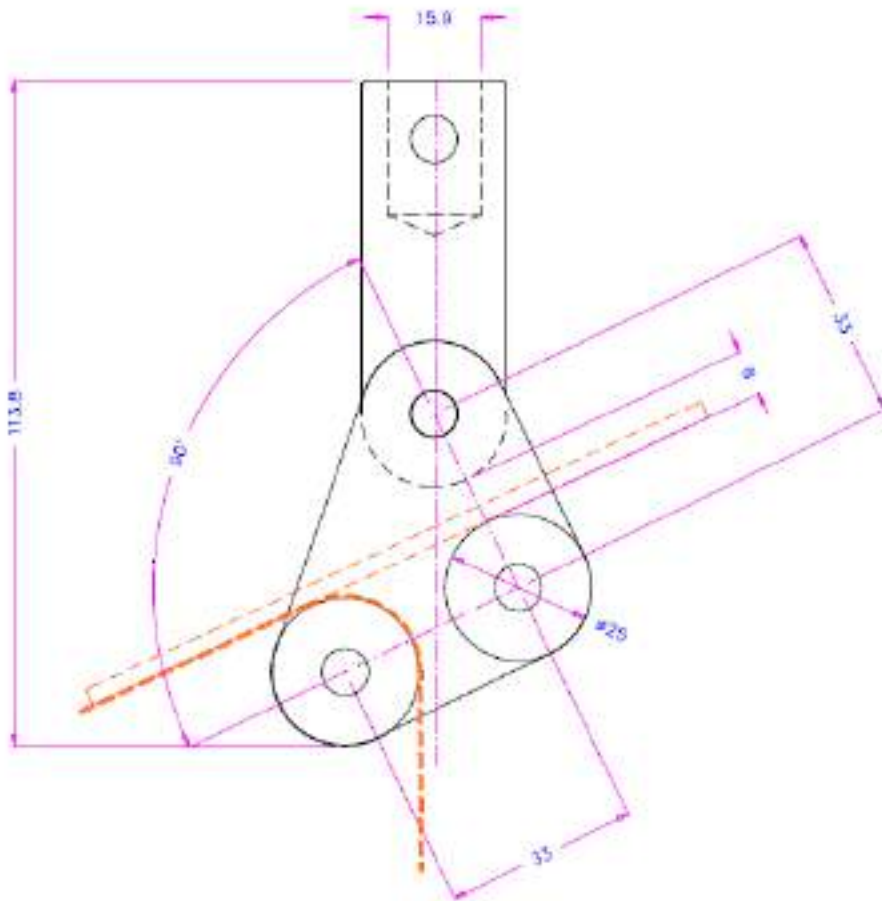
Máximum load: 10 kN

Temperature range: 0°C to +70°C

Body: Nickel plated steel

Scope of supply: 1 DP2 / 25 test fixture (without lower grip)
Lower clamping grip required

MODEL	DP2/25
Peel test accessory to test the peel strength of adhesive floating rollers according to DIN 53289, EN 1464, EN2243-2, ISO 4578	
Roller diameter:	25mm
Roller width :	25 mm
Weight:	0.60 kg



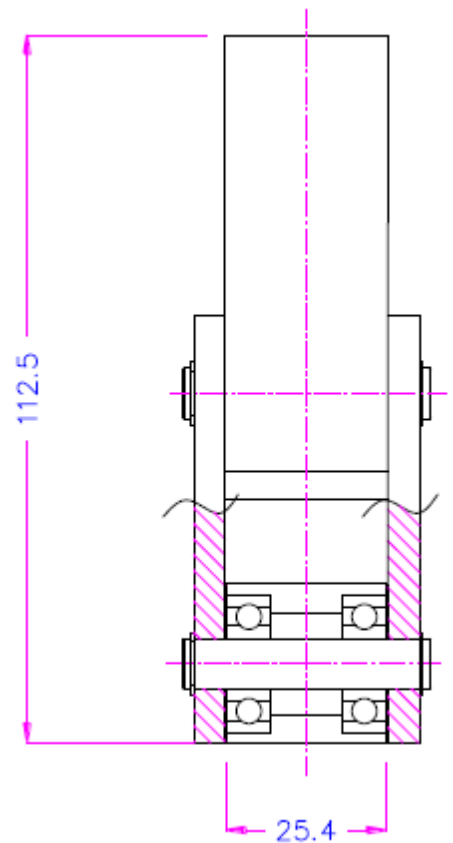
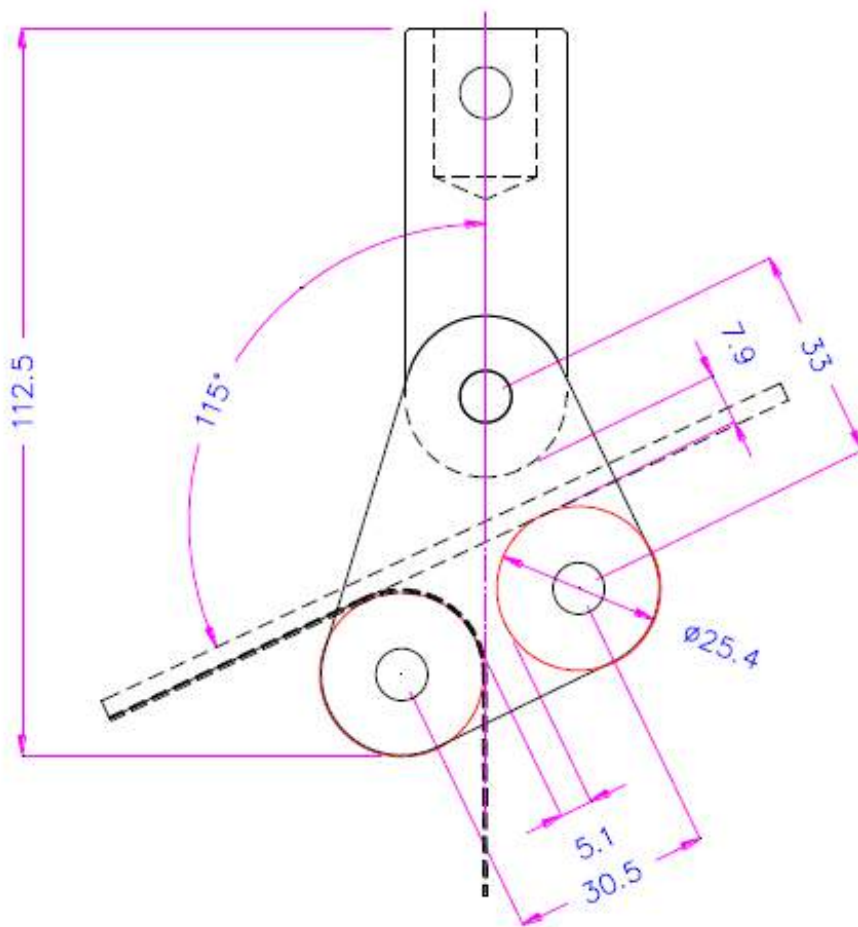
MODEL	DP2/25,4
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Floating Roller Peel Test Fixture, to test adhesive peel strength in accordance with ASTM D3167

Roller diameter:	25.4 mm (1 in.)
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Roller width :	25.4 mm (1 in.)
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Weight:	0.68 kg
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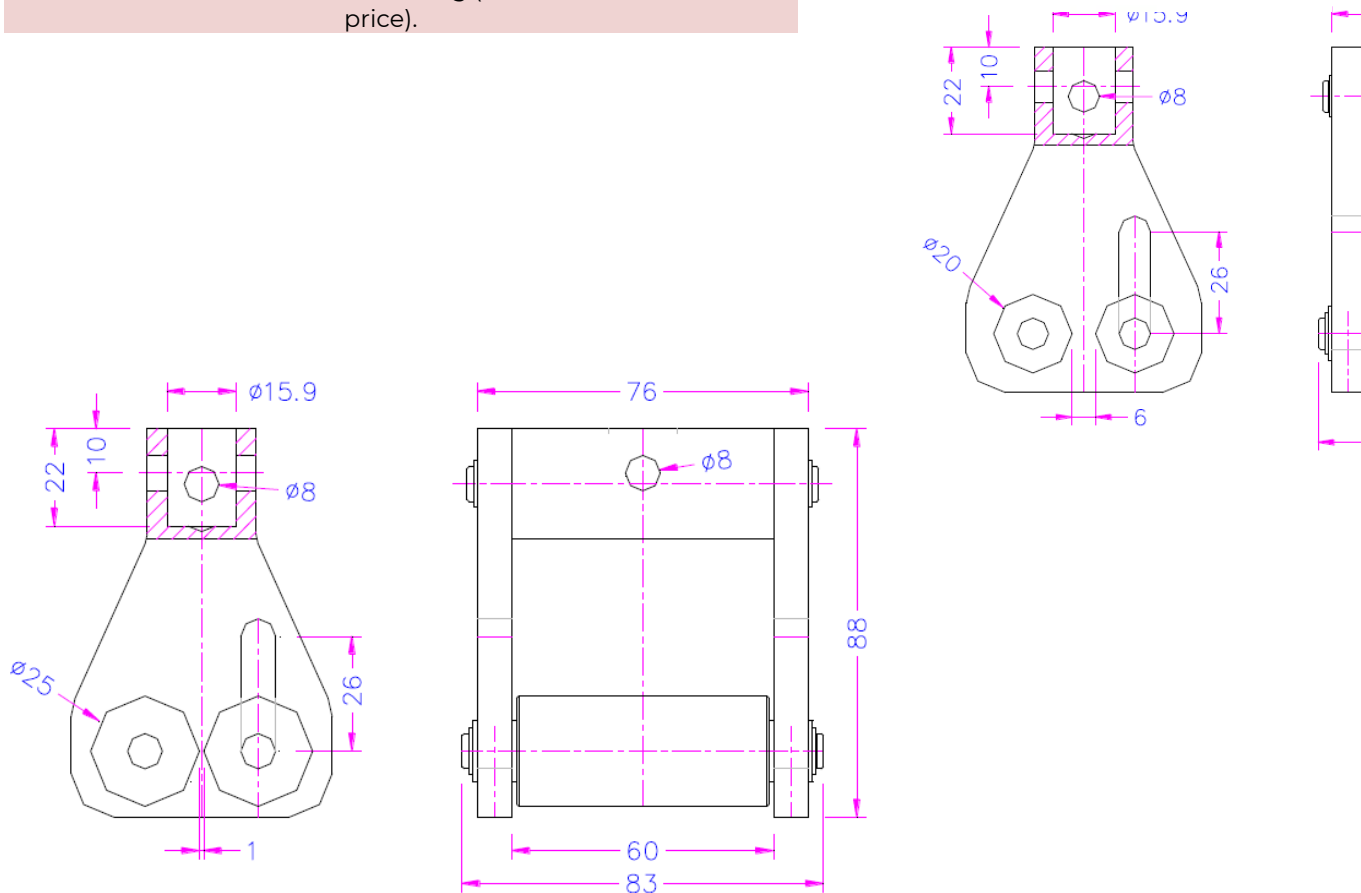
90 ° PEELING GRIP

With adjustable height of the second roller from 0 to 45 ° to test adhesives.

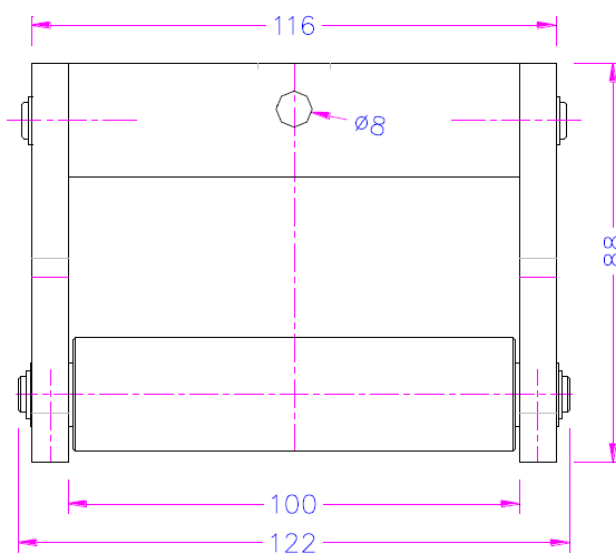
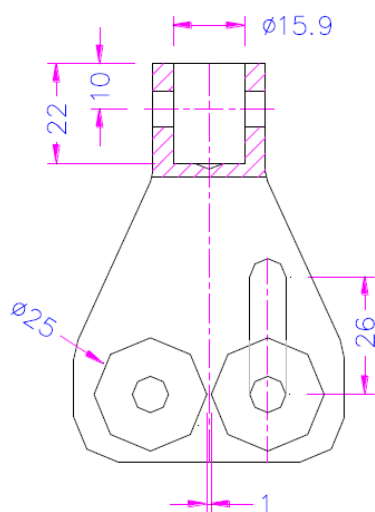
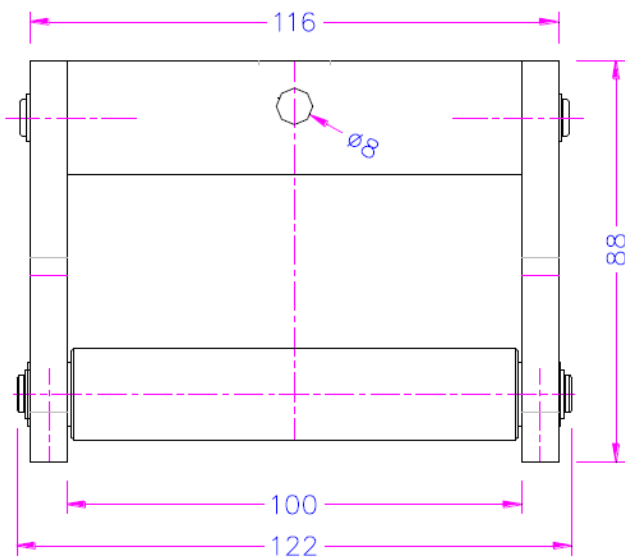
Floating roller peeling method.

DP2 / 60-45 according to DIN EN 1372: Test method for adhesives for floor and wall coverings - Peel test

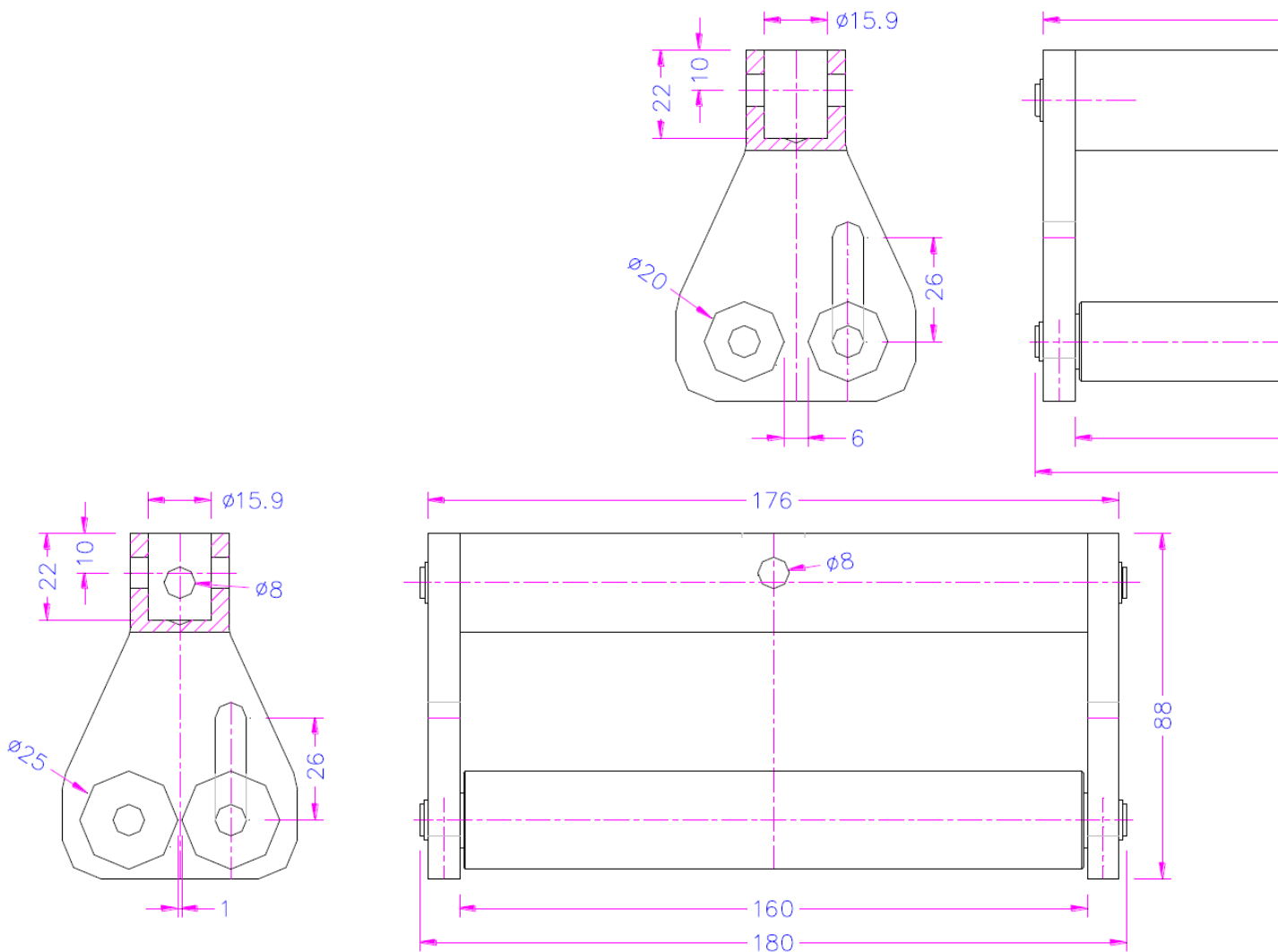
Model:	DP2/60-45-20 (DIN EN1372) DP2/60-60-25
Maximum load:	16 kN
Rollers:	20 mm Ø (DP2/60-20) 25 mm Ø (DP2/60-25)
Coupling:	15,9 mm. Other couplings on request
Material:	Steel, nickel plated
Temperature range:	0 ... +70°C Other temperature ranges on request
Weight:	1 kg each grip
Scope of supply:	1 grip. An additional lower grip is required for testing (not included in the price).



Model:	<u>DP2/100-45-20</u> (DIN EN1372) <u>DP2/100-60-25</u>
Maximum load:	12 kN
Rollers:	20 mm Ø (DP2/100-20) 25 mm Ø (DP2/100-25)
Coupling:	15,9 mm. Other couplings on request
Material:	Steel, nickel plated
Temperature range:	0 ... +70°C Other temperature ranges on request
Weight:	1,5 kg each grip
Scope of supply:	1 grip. An additional lower grip is required for testing (not included in the price).



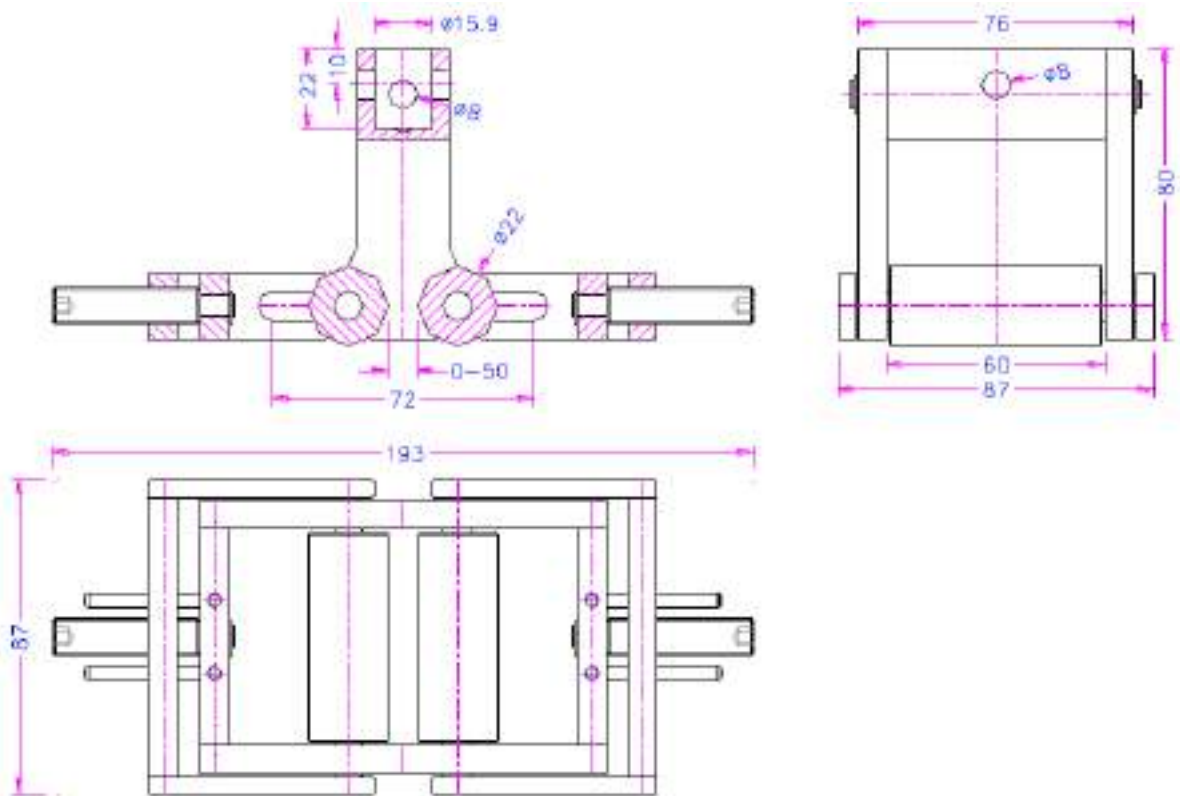
Model:	<u>DP2/160-45-20</u> (DIN EN1372) <u>DP2/160-60-25</u>
Maximum load:	8 kN
Rollers:	20 mm Ø (DP2/160-20) 25 mm Ø (DP2/160-25)
Coupling:	15,9 mm. Other couplings on request
Material:	Steel, nickel plated
Temperature range:	0 ... +70°C Other temperature ranges on request
Weight:	1,9 kg each grip
Scope of supply:	1 grip. An additional lower grip is required for testing (not included in the price).

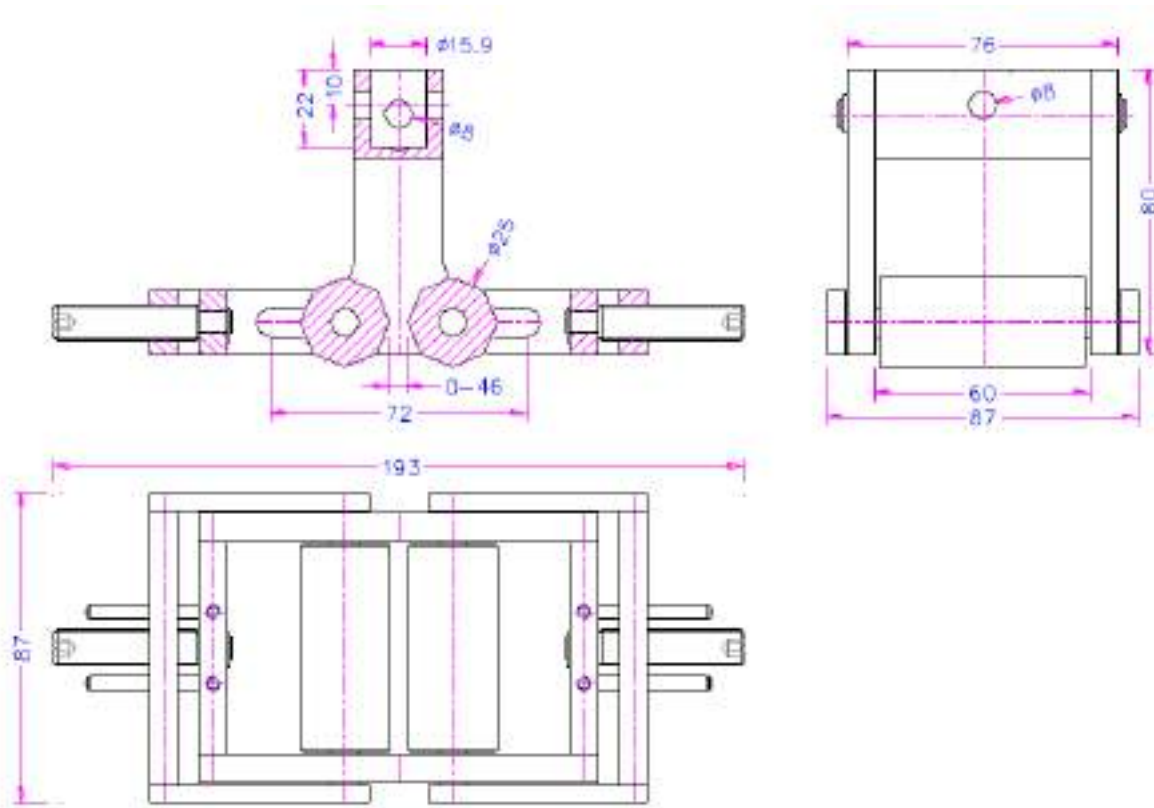


Peel testing devices with adjustable roller spacing to test 0-50mm (DP2V / 22-50) or 0-46mm (DP2V / 22-25) thick samples.

Peel Test Device with variable distance between rollers between 0 and 50mm

Modelo:	<u>DP2V/22-50</u> <u>DP2V/22-25</u>
Maximum load:	12 kN
Rollers:	20 mm Ø (DP2V/22-50) 25 mm Ø (DP2V/22-25)
Coupling:	15,9 mm. Other couplings on request
Material:	Steel, nickel plated
Temperature range:	0 ... +70°C Other temperature ranges on request
Weight:	1,6 kg each grip
Scope of supply:	1 grip. An additional lower grip is required for testing (not included in the price).





customized solutions:



DP2/25-A35-H100

Peel test accessory with adjustable peel angle (90 ° to 110 °) and 100 mm height for thicker samples.
 25 mm Ø rollers
 Distance between roller centers 35 mm
 Specimen holder max. thickness 30 mm
 Sample max. Peeling thickness 10 mm



DP2/-25-2-200-100-4R

Peeled testing device for samples 120x180 mm, such as eg. ex. foam
 4 rollers 25 mm Ø
 2 rollers with adjustable height

As a lower clamping grip we recommend for example MDM / 5-BP or similar:



Climbing Drum Peel Test Fixture model DP/TA-100 (EN-DIN)

Climbing Drum Peel Test Fixture model DP/TA-102 (ASTM)

This test method allows the determination of the **peel strength** between adhered joints: a **sandwich of two layers of aluminum and polyethylene**, these test tools being incorporated in a Universal Testing Machine.

APPLICABLE STANDARDS

DP-TA/D100 according to EN 2243 - DIN53295

DP-TA/D102 according to ASTM D 1781



GENERAL INFORMATION

Peel resistance tests of layers adhered to each other. This test method allows the determination of the resistance to peel between adhered joints: a sandwich of two layers of aluminum and polyethylene. The goal is to measure the average torque required to strip the two materials, to keep the outer skin against the face of the drum. During a test, the load belts pull on the drum assembly, forcing it to rotate and climb along the length of the aluminum panel. This movement peels the outer skin off the core structure. The peel force is controlled by means of the load measurement system that provides a measure of the strength of the bond between the 2 faces of the sandwich.

CLIMBING DRUM PEEL TEST FIXTURE

Designed to test the peel strength of adhesive joints, e.g. ex. for honeycomb sandwich constructions, according to ASTM-D1781, EN 2243-3 and DIN 53295 standards.

The device consists of a flanged drum, flexible load straps attached to the adapter, and clamps to hold the test sample.

Models:	DP-TA/D100 (Standard EN – DIN) DP-TA/D102 (Standard ASTM)
Maximum load:	10 kN
Coupling:	15.9mm or 20mm Other couplings on request
Minimum distance traveled:	1200 mm
Material:	Aluminium (drum), steel (rest)
Temperature range:	0 – 70 °C Other temperature ranges on request
Weight:	3,5 kg
Scope of supply:	Fixture test model requested An additional top grip is required (must be ordered separately)

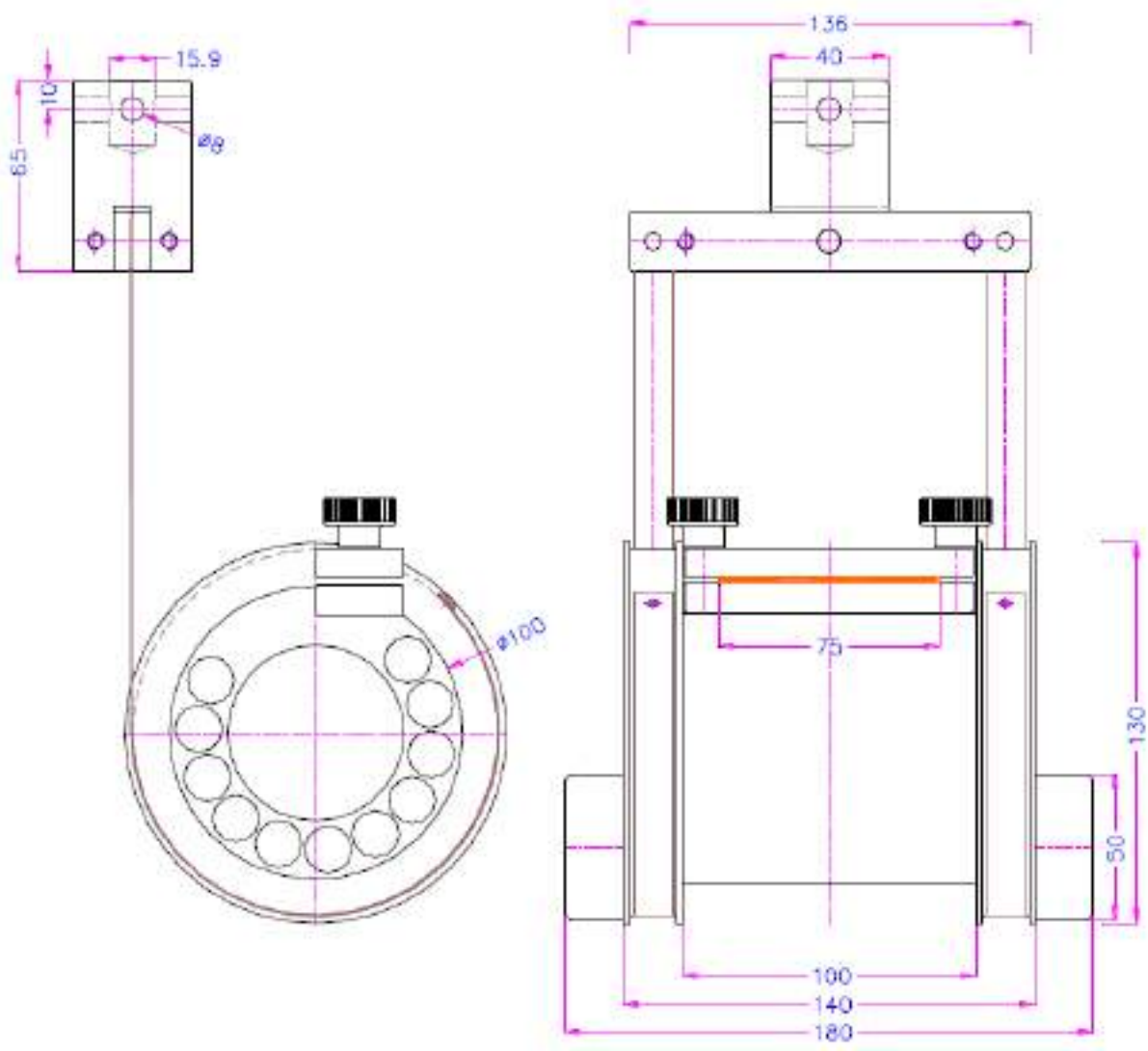
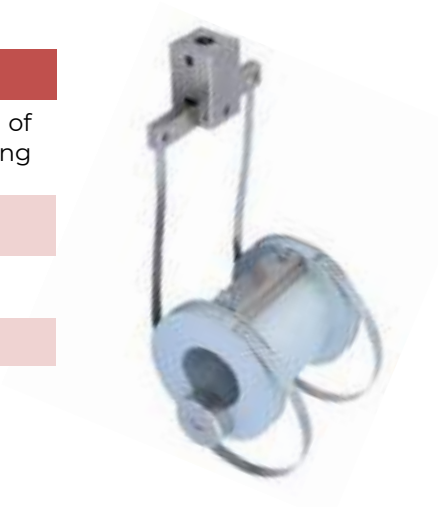
Model DP-TA/100 (EN - DIN)

Climbing drum peel tester for determining the peel strength of adhesive joints in honeycomb core sandwich constructions according to EN 2243-3 and DIN 53295

Drum diameter: 100 mm

Sample width: 75 mm

Sample length: 300 mm



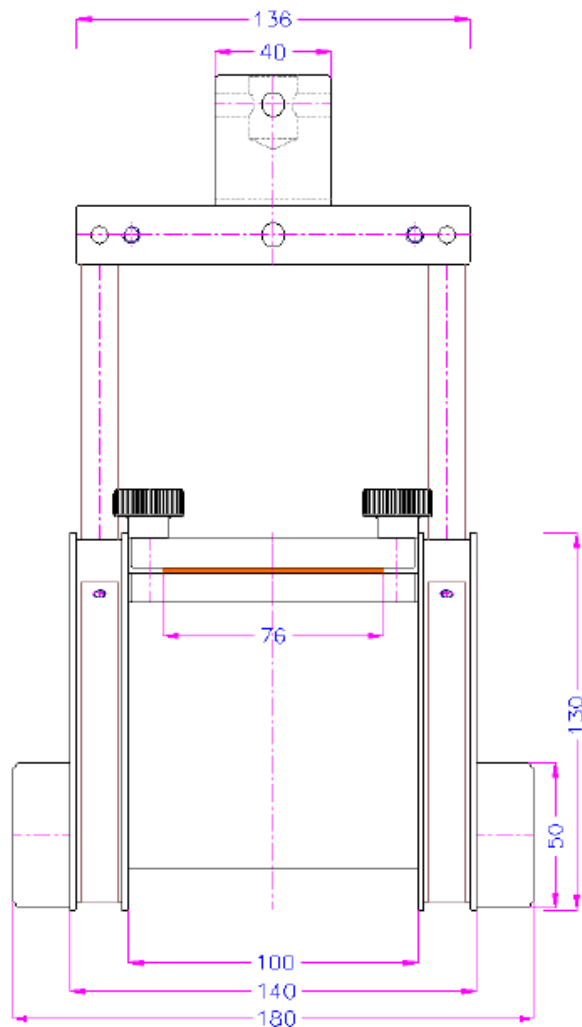
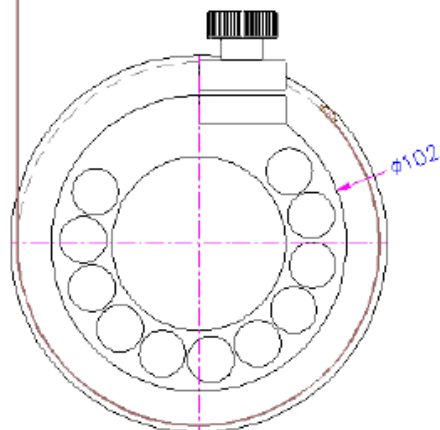
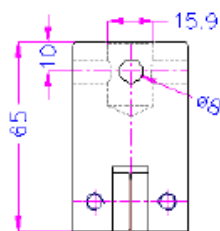
Model **DP-TA/102 (ASTM)**

Climbing drum peel tester for determining the peel strength of adhesive bonds between a relatively flexible and a rigid adherent; and the relatively flexible cladding of a sandwich structure and its core in accordance with ASTM-D1781

Drum diameter: 102 mm (4 in.)

Sample width: 25 mm (1 in.)
for laminated assemblies
76 mm (3 in.)
for construction sandwich

Sample length: Min. 254 mm (10 in.)
for laminated assemblies
Min. 305 mm (12 in.)
for construction sandwich



OPTIONAL ACCESSORIES:

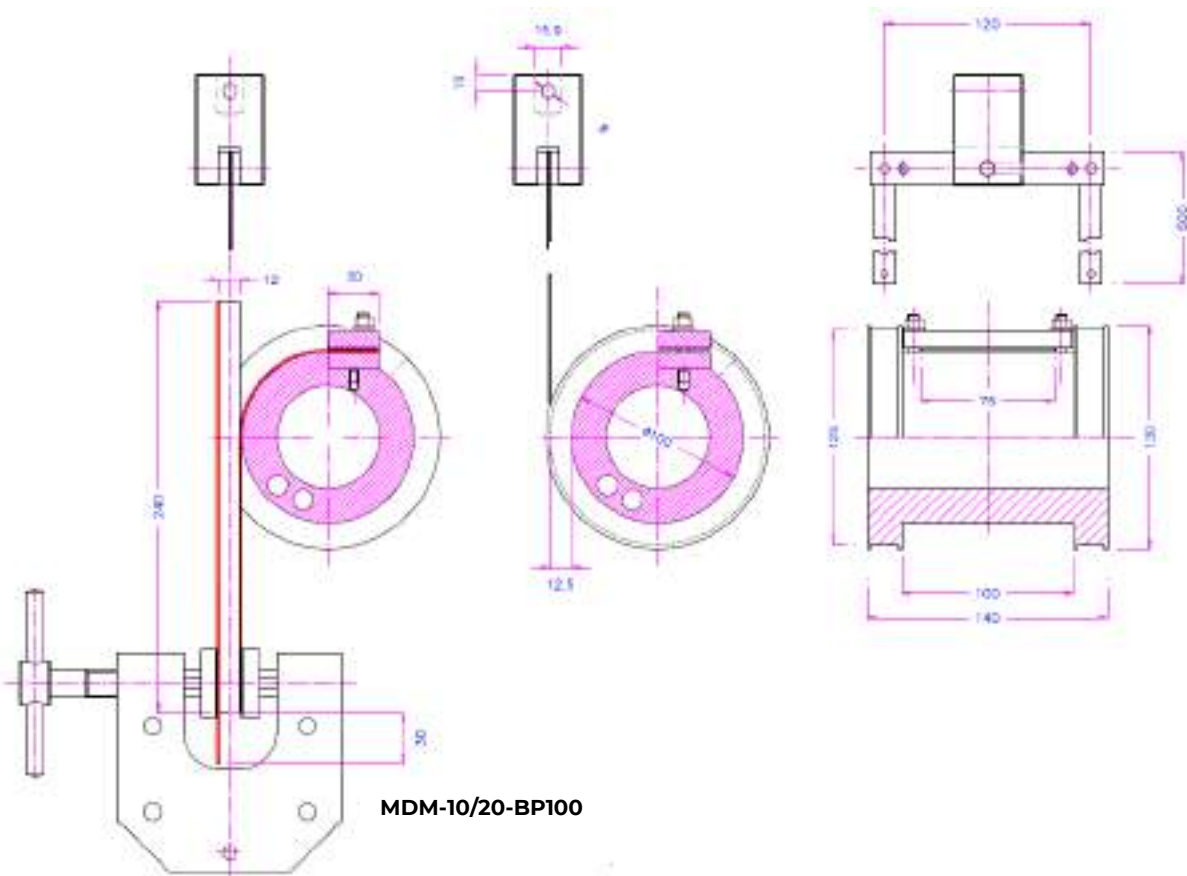
For upper grip we recommend:



Adjustable table: helps to start the test



MDM-10/20-BP100



MDM-10/20-BP100

Cleavage Strength Bond Test Fixture model DDC-100

Test fixture to perform detachment tests and measure the **bonding strength** of **Metal / Metal** joined by an adhesive, these tools being incorporated into a Universal Testing Machine.

APPLICABLE STANDARDS

ASTM D 1062

GENERAL INFORMATION

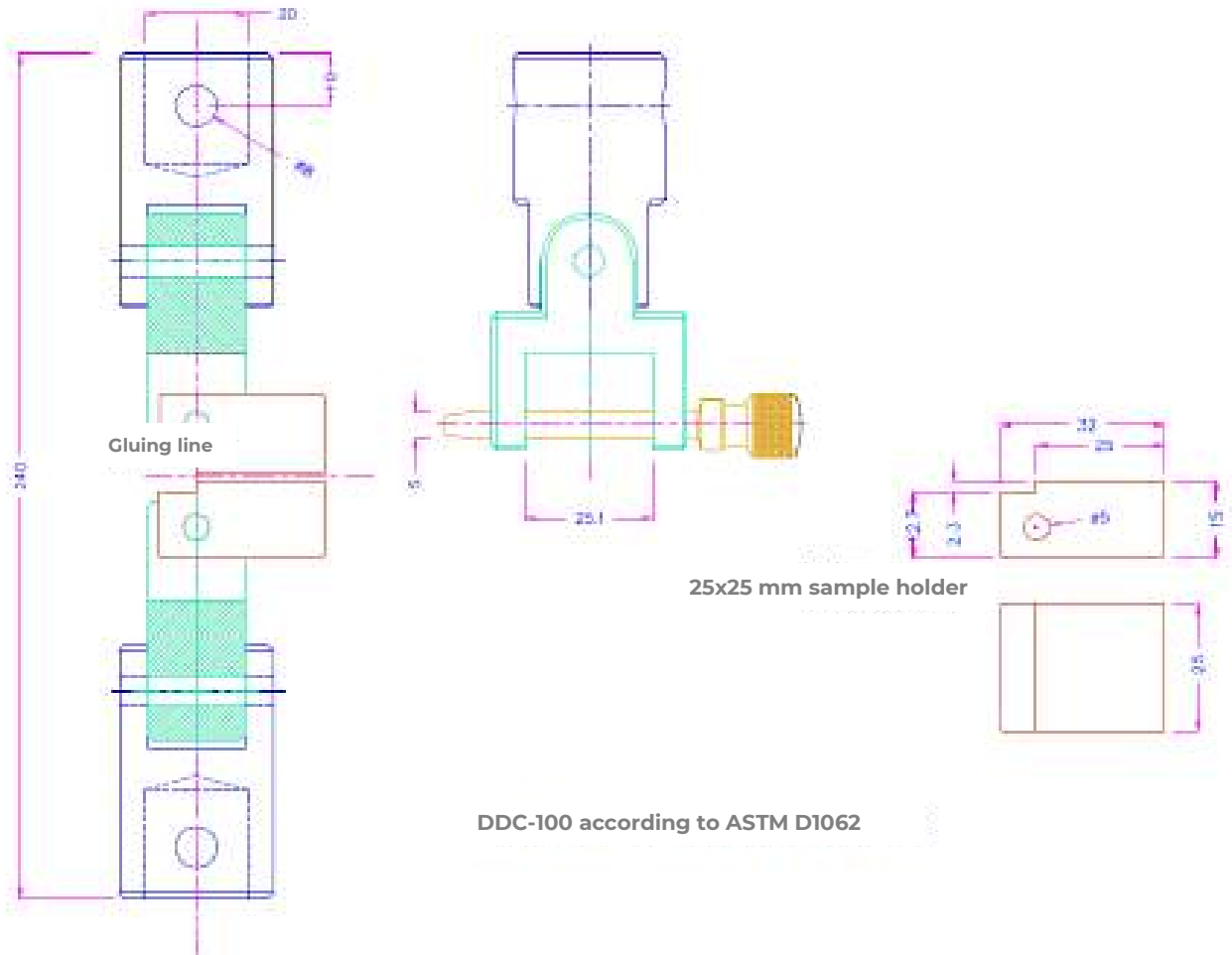
Take-off test fixture DDC-100

This test method covers the determination of the comparative peel properties of adhesive bonds when tested on metal samples as standard under specific preparation and test conditions. It can also be used to compare the adhesives used with other metallic materials that have any specified surface treatment.

The testing machine to be used must be capable of maintaining the load rate and must consist of a fixed element, a mobile element, and clamps. The test samples will be composed of pieces of metal glued together according to the prescribed dimensions indicated in this standard method.



Constant separation application rate. Continuous detachment and detachment forces



180° Peel Test Fixtures PT-180°

Test fixture to determine the **peel adhesion** properties of **self-adhesive tapes at 180°**, being incorporated in a universal testing machine.



APPLICABLE STANDARDS

DIN EN1939 y Finat FTM1, FTM3, FTM4

GENERAL INFORMATION

To test the peel adhesion properties of self-adhesive tapes at 180°

180° PEEL TEST FIXTURE

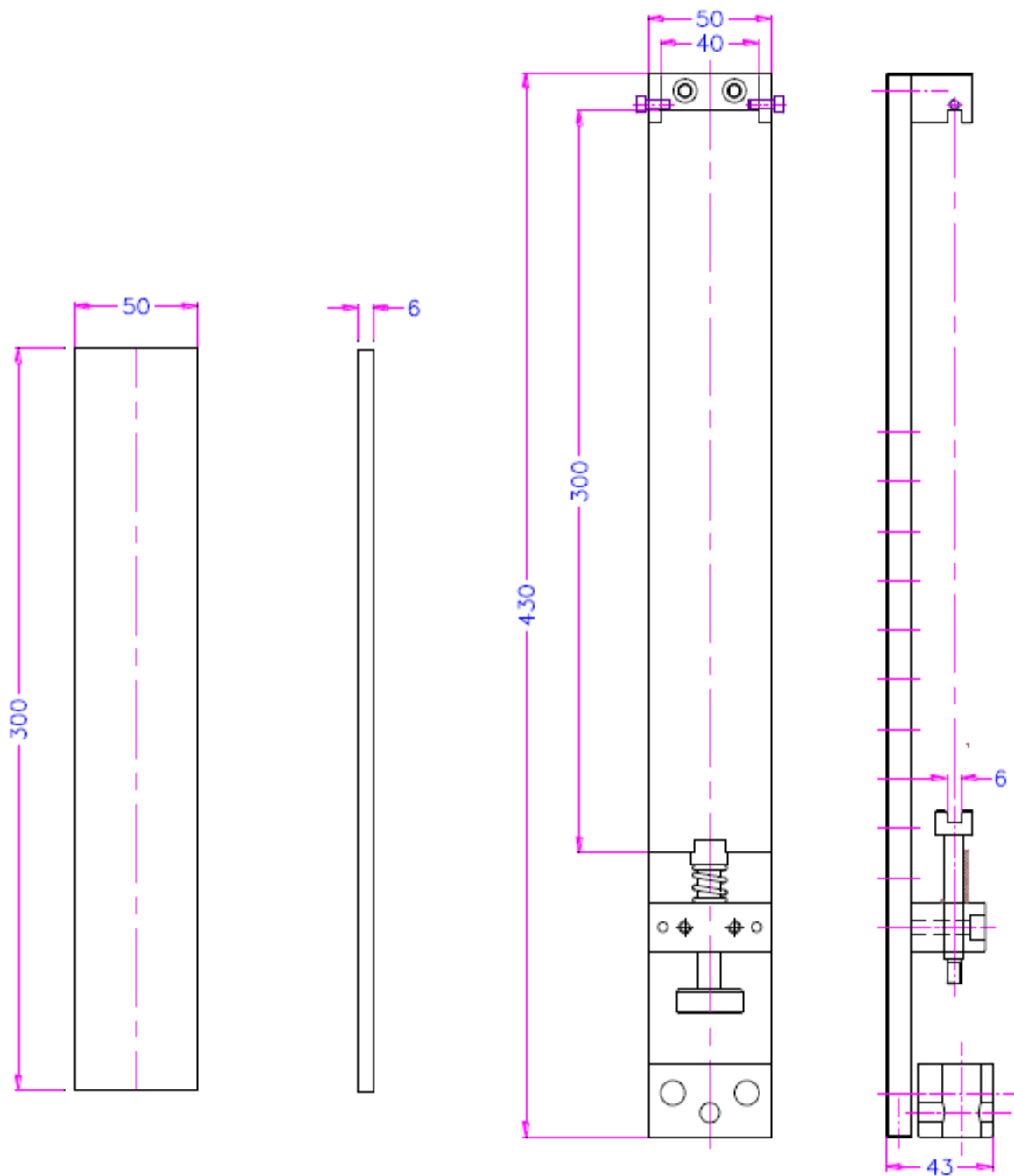
· **Carrier holder and test plates must be ordered separately.**

We also offer Finat compatible rollers to apply a sample of adhesive to a peel attachment test panel with even pressure (see page 2)

· **An upper grip is required** to hold the sample for testing (not included in the standard supply)

Modelo:	PT180°
Maximum load:	10 kN
Sample width:	50 mm
Sample length:	300 mm
Coupling:	15,9 mm Other couplings on request
Weight:	2,40 kg
Body:	Steel, nickel plated
Test plate:	See page 3
Temperature range:	0... + 70 ° C Other temperature ranges on request
Scope of supply:	1 Carrier support (without test plate)





Optional test plates:

Model	Material	DIN EN1939	FTM1	FTM3	FTM4	Weight:
PT180°-ESP	Plate Steel, nickel plated 300x50x5mm			x		0.6 kg
PT180°-EV2AP	V2A stainless steel 1.4301 Rugosity 50 nm ± 25 nm	x				0.6 kg
PT180°-EGP	Glass plate 300x50x5mm		x	x	x	0.22 kg



PT180°-ESP



PT180°-EGP

Roller according to FINAT standards



For a superior grip to clamp the specimen, we recommend the grip:



Grip MDM/5

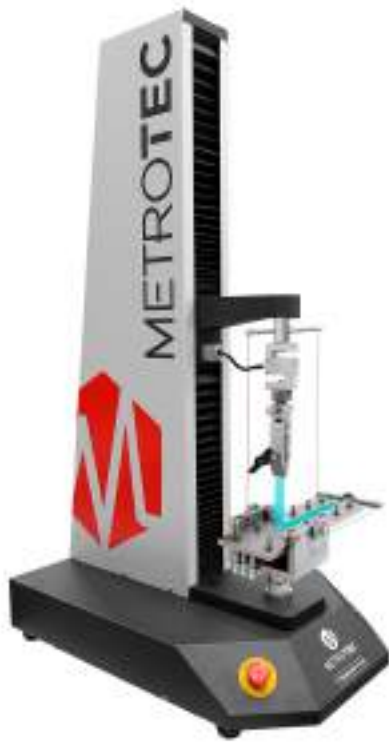


Jaws MDM/5-BG
Rubber covered



Jaws MDM/5.BP
Serrated (pyramids)

Recommended Testing Machines:



MTE-1 (to 1 kN)



MTE-10 (to 10 kN)



MTE-25 (to 25 kN)