

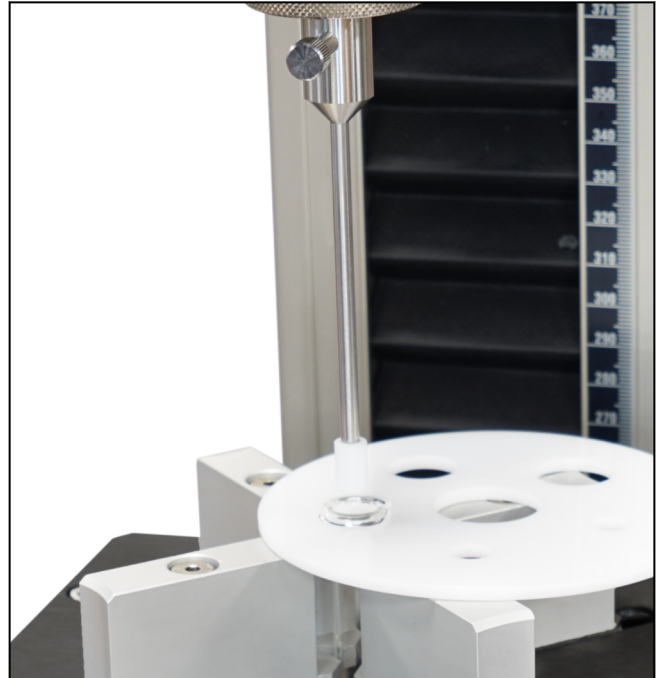
## Product Information

### ISO 11040-4/-6 Annex C1 - Finger flange breakage force

CTA: 133005 133005



Test arrangement with universal mount, support fixture and compression die



Detail view with inserted syringe and compression die

#### Applications

The test fixture is used to determine the breakage force of the finger flange of prefilled syringes.

In Annex C1 of the standard the breakage resistance of the finger flange is tested. To perform the test the glass or plastic syringe is inserted into the support disc of the universal mount.

A compression die is used to apply force to the syringe barrel until the finger flange breaks.

The expected force range is 300 N.

The test results contain the following information:

- Test speed
- Distance from tip to loading point
- Force at break
- Number of syringes tested

#### Advantages and features

- The same test fixture can also be used for Annex E and G2
- Adjustable mount for different syringe volumes with varying diameters and lengths
- Quick-release fastener for fast specimen changes
- High stiffness and precise crosshead guidance of the zwickiLine
- Maximum safety for the user, the test results, the specimen material, and the testing system
- Online correction of machine compliance guarantees very high accuracy of travel measurement and positioning
- Traceable and reliable test results in accordance with ZwickRoell whitepaper FDA 21 CFR Part 11: This guarantees complete, tamper-proof documentation of all actions and changes that are performed in the testXpert III testing software

## Product Information

### ISO 11040-4/-6 Annex C1 - Finger flange breakage force

#### Technical data

Item No.	082865	
Test load $F_{max}$	1	kN
Syringe diameter	5 ... 50	mm
Gripping ranges		
Gripping range 1 for syringe/carpule diameter	5 ... 26	mm
Gripping range 2 for syringe/carpule diameter	24 ... 50	mm
Syringe length	30 ... 150	mm
Height	220	mm
Width	220	mm
Depth	155	mm
Weight, approx.	3	kg
Ambient temperature	+10 ... +35	°C
Connection, lower	Connector TK 40/75 mm Base crosshead (zwickiLine)	
Scope of delivery	Lower holding fixture, upper die, beaker for the collection of exiting fluids	

#### Accessories required

##### Compression die (1 x required)

Type	Test load $F_{max}$ [kN]	Ambient temperature [°C]	Scope of delivery [piece(s)]	Connection [mm]	Item No.
Compression die C1 Ø 4 mm	0.5	+10 ... +35	1	Stud Ø 8	1037556
Compression die C1 Ø 5 mm	0.5	+10 ... +35	1	Stud Ø 8	1037560
Compression die C1 Ø 7 mm	0.5	+10 ... +35	1	Stud Ø 8	1037562
Compression die C1 Ø 10 mm	1	+10 ... +35	1	Stud Ø 8	1037563
Compression die C1 Ø 12 mm	1	+10 ... +35	1	Stud Ø 8	1037564
Compression die C1 Ø 16 mm	1	+10 ... +35	1	Stud Ø 8	1037565

## Product Information

### ISO 11040-4/-6 Annex C1 - Finger flange breakage force

Type Item No.	Support plate for holding syringes 1037571	
Test load $F_{max}$	1	kN
Support plate opening at outer diameter of syringe:		
Opening $\varnothing$ 7.3 mm for syringe	$\varnothing$ 6.85	mm
Opening $\varnothing$ 8.6 mm for syringe	$\varnothing$ 8.15	mm
Opening $\varnothing$ 11.4 mm for syringe	$\varnothing$ 10.85	mm
Opening $\varnothing$ 15 mm for syringe	$\varnothing$ 14.45	mm
Opening $\varnothing$ 17.5 mm for syringe	$\varnothing$ 17.05	mm
Opening $\varnothing$ 22.5 mm for syringe	$\varnothing$ 22.05	mm
Ambient temperature	+10 ... +35	°C
Weight, approx.	0.03	kg