

Product Information

Compression die for testing flexible foams

CTA: 134329 100015



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Applications

The compression die are suitable for component and materials testing on flexible foams. Component testing is primarily performed on flexible foam products such as mattresses and vehicle seats and upholstery. For materials testing, cubes or slabs of flexible foam are used. Compression tests, cyclic indentation tests and pulsating compressive strength tests (alternating load tests) are employed.

ZwickRoell offers a wide range of compression die with different diameters in accordance with the requirements of standards or company specifications. The compression die are circular flat, hemispherical or spherical.



Advantages and features

- They are easy to install and change.
- ZwickRoell offers a wide ranging portfolio of compression dies which allows you to meet all established test standards for testing flexible foams.
- Depending on ball joint mounting or fixed connection.

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Indenter for soft foam testing to DIN 53579, ASTM D 3574, EN ISO 2439 and DIN EN ISO 1957

Item No.	Standard	Type	Indenter geometry	Indenter shape	Test load F_{max} [kN]	Mounting
311040	DIN 53579	I	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311044	DIN 53579	II	Ø 112.8 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311048	DIN 53579	III	Ø 79.8 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311050	DIN 53579	IV	Ø 56.4 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311052	DIN 53579	V	Ø 25.2 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
355505	DIN 53579	XI	Ø 75 mm	Hemispherical	10	Rigid mounting
316571	DIN 53579	XII	Ø 20 mm	Hemispherical	20	Rigid mounting
373549	DIN 53579	XIII	Ø 165 mm	Hemispherical	10	Rigid mounting
311054	DIN 53579	XXI	Ø 200 mm, r = 5 mm	Circular convex, crown radius = 200 mm	10	Ball-joint mounting
311040	ASTM D3574	B1, B2	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311040	DIN EN ISO 2439	-	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
362695	DIN EN 1957	-	Ø 355 mm, r = 20 mm	Circular convex, crown radius = 800 mm	10	Ball-joint mounting

Automotive factory norms

Item No.	Standard	Type	Indenter geometry	Indenter shape	Test load F_{max} [kN]	Mounting
-	Daimler	DBL 5452 complies to test standards DIN 53579 and EN ISO 2439	-	-	-	-
-	BMW	QV52009 part 2 complies to test standards DIN 53579 and EN ISO 2439	-	-	-	-
311054	Volkswagen	PV3410 deformation diagram/hysteresis	Ø 200 mm, r = 5 mm	Circular convex, crown radius = 200 mm	10	Ball-joint mounting
311044	Volkswagen	PV3410 hardness on finished part	Ø 112.8 mm, r = 1 mm	Circular flat	10	Ball-joint mounting

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Item No.	Standard	Type	Indenter geometry	Indenter shape	Test load F _{max} [kN]	Mounting
355505	Volkswagen	PV3410 hardness on finished part	Ø 75 mm	Hemispherical	10	Rigid mounting
603887	General Motors (GMI 60283 part 7)	Test specimen 1	Ø 100 mm, r = 8 mm	Circular flat	10	Ball-joint mounting
316577	PSA and Renault	D41 5420 indentation measurement and 32-05-002/K	Ø 50	Hemispherical	50	Rigid mounting
373549	PSA and Renault	32-05-002/K	Ø 165 mm	Hemispherical	10	Rigid mounting
362894	Toyota	TSM 7100G, TSF 6223G, TSM 6716G	Ø 200 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
316571	Toyota	TSF 6223G (seat parts)	Ø 20 mm, r = 1 mm	Hemispherical	20	Rigid mounting
603887	Toyota	TSM 6716 G	Ø 100 mm, r = 8 mm	Circular flat	10	Ball-joint mounting
603887	General Motors (GMI 60283 part 7)	Test specimen 1	Ø 100 mm, r = 8 mm	Circular flat	10	Ball-joint mounting
603887	General Motors (GMI 60283 part 7)	Test specimen 2	Ø 100 mm, r = 8 mm	Circular flat	10	Ball-joint mounting
311042	General Motors (GMI 60283 part 7)	Test specimen 3	Ø 152.5, r = 11 mm	Circular flat	10	Ball-joint mounting
311040	General Motors (GMI 60283 part 7)	Test specimen 4	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311040	General Motors (GMI 60283 part 7)	Test specimen 5	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311042	General Motors (GMI 60283 part 7)	Test specimen 6	Ø 152.5, r = 11 mm	Circular flat	10	Ball-joint mounting
611406	General Motors (GMI 60283 part 7)	Test specimen 7	Ø 25 mm, bevel 0.5 x 45	Circular flat	10	Ball-joint mounting
311040	General Motors (GMI 60283 part 7)	GMW15471	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
311040	Ford	-	Ø 203 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
362894	Honda	-	Ø 200 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
316626	Nissan	M0086	Ø 50 mm, r = 1 mm	Circular flat	10	Ball-joint mounting

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362894	Nissan	-	Ø 200 mm, r = 1 mm	Circular flat	10	Ball-joint mounting
316571	Nissan	-	Ø 20 mm	Hemispherical	20	Rigid mounting
362894	Mitsubishi	ES-X62102	Ø 200 mm, r = 1 mm	Circular flat	10	Ball-joint mounting

Additional indenters for soft foam testing on finished parts and quadratic specimens

Item No.	Test load $F_{\max}$ [kN]	Indenter geometry [mm]	Indenter shape	Mounting
316624	10	Ø 20; r=1	Circular flat	Ball-joint mounting
316626	10	Ø 50; r=1	Circular flat	Ball-joint mounting
311046	10	Ø 100; r=1	Circular flat	Ball-joint mounting
311038	10	Ø 305; r=25	Circular flat	Ball-joint mounting

Indenter for other applications

Item No.	Test load $F_{\max}$ [kN]	Indenter geometry	Indenter shape	Mounting
362981	10	Ø 79.8 mm, r = 0.5 mm	Circular flat	Ball-joint mounting
316577	50	Ø 50	Hemispherical	Rigid mounting

Accessories required

- Connection components