

Jaws type 8287 and 8487



Jaws, steel, smooth



The jaw inserts type 8287/8487 are used with the following specimen grips:

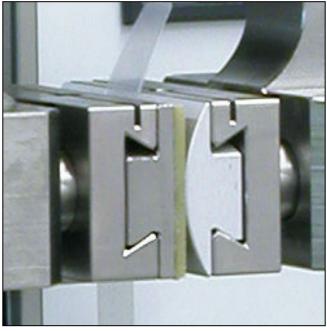
- <u>Screw grips:</u> Type 8133, 8253, 8354 and 8355
- Wedge grips (with integrated jaw mounting): Type 8201, 8302
- Wedge screw grips (with integrated jaw mounting): Type 8306, 8406
- <u>Pneumatic grips:</u> Type 8195, 8097, 8195, 8197, 8297, 8287, 8397, 8497, 8097, 8388, 8187
- Hydraulic grips: Type 8392
- Rope grips: Type 8370, 8470
- Grips with deflection (capstan grips): Type 8314, 8315

Function description

Jaws form the link between the specimen grip and the specimen. They introduce the gripping force generated in the specimen grip into the specimen by means of a force-fit. Suitable selection of the structure and hardness of the clamping surfaces ensures that the specimen is held securely.

There are three fundamentally different jaw systems:

- jaws integrated into the specimen grips
- special interchangeable jaws for the corresponding specimen grip
- jaw mountings with dove-tail system (for Type 8287 or 8487 jaws).



Jaws, convex aluminum against smooth vulkollan

A wide range of jaws is available for all specimen grips employing the dove-tail jaw system. Changing the jaws is easy; they are pushed into the integrated jaw mounting and locked into place via a ball-lock system. Types 8287 and 8487 jaws can be used up to a specimen-grip tensile force of 20 kN.

The following criteria are of importance when selecting the jaws:

- jaw material plus hardness, temperature range and friction against the specimen material
- surface structure
- gripping area
- jaw thickness.

The criteria are set out in detail in the table below.

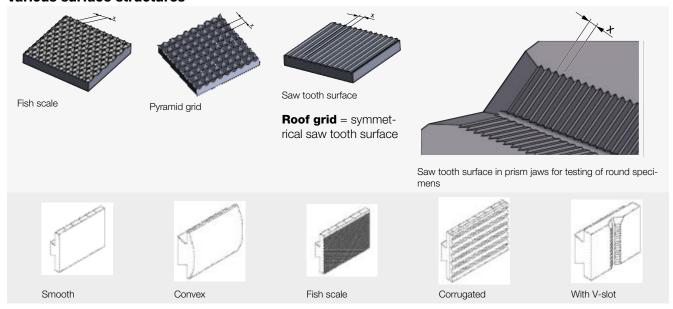
To simplify the layout of the jaw data table, the jaw material and surface structure are grouped under the heading "Version".

In case of doubt the selection of grips plus associated jaws can be checked by our experienced applications engineers or via preliminary testing in our Applications Test Laboratory.



Jaws type 8287 and 8487

Various surface structures





Jaws type 8287 and 8487

Jaws type 8487

| Version | Clamping sur Height [mm] | face Width [mm] | Ambient temperature [°C] | Hardness | Jaw thick- ness (dimension x) [mm] | Item No. |
|--|--------------------------------|-----------------------|--------------------------------|---|--|----------|
| Non-slip coating | 50 | 60 | -15 +40 | 62 Shore A | 5 | 314269 |
| Non-slip coating | 50 | 210 | -15 +40 | 62 Shore A | 10 | 315043 |
| Vulkollan, smooth | 50 | 60 | -15 +80 | 88 ± 3 Shore (A) | 5 | 313914 |
| Vulkollan, smooth | 50 | 210 | -15 +80 | 88 ± 3 Shore (A) | 10 | 314271 |
| Vulkollan, smooth | 50 | 110 | -15 +80 | 88 ± 3 Shore (A) | 10 | 343542 |
| Vulkollan, corrugated | 50 | 60 | -15 +80 | 88 ± 3 Shore (A) | 6 | 313988 |
| Vulkollan, corrugated | 50 | 210 | -15 +80 | 88 ± 3 Shore (A) | 12 | 315003 |
| Steel, smooth | 50 | 60 | -80 +360 | 61 HRC | 5 | 313916 |
| Steel, smooth | 50 | 210 | -70 +250 | Unhardened | 10 | 315041 |
| Steel, corrugated | 50 | 60 | -70 +250 | Unhardened | 6 | 313912 |
| Steel, corrugated | 50 | 210 | -70 +250 | Unhardened | 12 | 314267 |
| Steel, corrugated | 70 | 60 | -70 +250 | Unhardened | 6 | 318826 |
| Steel, pr ¹⁾ 0.7 mm | 50 | 60 | -80 +360 | 61 HRC | 5 | 313910 |
| Steel, pr ¹⁾ 0.7 mm, with ejector | 50 | 60 | -70 +250 | 61 HRC | 5 | 313918 |
| Steel, fsc ²⁾ 0.4 | 50 | 60 | -80 +360 | 61 HRC | 5 | 313908 |
| Steel, fsc ²⁾ 0.75 | 50 | 60 | -80 +360 | 61 HRC | 5 | 318996 |
| Steel, fsc ²⁾ 1.25 | 50 | 60 | -80 +360 | 61 HRC | 5 | 318998 |
| Corundum, 240 coarse | 50 | 60 | -70 +80 | - | 5 | 317661 |
| Oxide ceramic ³⁾ | 50 | 60 | -70 +80 | 2300 N/mm ² Hardness Knoop | 5 | 313946 |

¹⁾ Pr = pyramid grid

²⁾ Fsc = fish scale

³⁾ Max. 20 kN gripping force



Jaws type 8287 and 8487

Jaws type 8287

In the data table the criteria jaw material and surface structure are grouped under the term Version.

Scope of delivery for all items: 1 set = 4 pieces

| Version | Clamping surface Height [mm] | Width [mm] | Ambient temperature | Hardness | Jaw thick- ness (dimen- sion x) [mm] | Item No. |
|--|------------------------------------|---------------------|---------------------|--------------------------------|---|----------|
| Non-slip coating | 30 | 32 | -15 +40 | 65 Shore A | 5 | 314360 |
| Non-slip coating with V-notch | 30 | 32 | -15 +40 | 65 Shore A | 5.5 | 3003407 |
| Non-slip coating with V-notch | 30 | 32 | -15 +40 | 65 Shore A | 9 | 3003408 |
| Vulkollan, smooth | 30 | 32 | -15 +80 | 88 ± 3 Shore (A) | 5 | 313902 |
| Vulkollan, smooth | 30 | 60 | -15 +80 | 88 ± 3 Shore (A) | 6 | 314366 |
| Vulkollan, smooth | 30 | 110 | -15 +80 | 88 ± 3 Shore (A) | 5 | 315035 |
| Vulkollan, smooth | 50 | 32 | -15 +80 | 88 ± 3 Shore (A) | 5 | 318700 |
| Vulkollan, smooth | 25 | 50 | -15 +80 | 88 ± 3 Shore (A) | 5 | 316502 |
| Vulkollan, smooth | 25/30 ¹⁾ | 25/60 ¹⁾ | -15 +80 | 88 ± 3 Shore (A) | 5 | 315033 |
| Vulkollan, corrugated | 30 | 32 | -15 +80 | 88 ± 3 Shore (A) | 6 | 314358 |
| Vulkollan, corrugated | 30 | 60 | -15 +80 | 88 ± 3 Shore (A) | 6 | 314368 |
| Convex aluminum against smooth Vulkol- lan ²⁾ | 30 | 32 | -15 +80 | 80 HB/ 88 ± 3 Shore (A) | 5 | 314370 |
| Convex aluminum against smooth Vulkol- lan | 30 | 60 | -15 +80 | 80 HB/ 88 ± 3 Shore (A) | 5 | 315024 |
| Convex aluminum against smooth steel | 30 | 60 | -70 +150 | 80 HB/61 HRC | 5 | 600230 |
| Convex steel against smooth Vulkollan ²⁾ | 30 | 110 | -15 +80 | 61 HRC/ 88 ± 3 Shore (A) | 5 | 315952 |
| Steel, smooth | 30 | 32 | -80 +360 | 61 HRC | 5 | 313904 |
| Steel, smooth | 30 | 60 | -80 +360 | 61 HRC | 5 | 314362 |
| Steel, smooth | 30 | 110 | -80 +360 | 61 HRC | 5 | 314349 |
| Steel, smooth | 50 | 32 | -80 +360 | 61 HRC | 5 | 318696 |
| Steel, smooth, relief ground | 7 | 32 | -70 +250 | 61 HRC | 5 | 320909 |
| Steel smooth, with V-slot size 1, 1.5 mm for specimen Ø 410 mm | 30 | 32 | -80 +360 | 61 HRC | 5 | 317216 |



Jaws type 8287 and 8487

| Version | Clamping surface Height [mm] | Width [mm] | Ambient temperature | Hardness | Jaw thick- ness (dimen- sion x) [mm] | Item No. |
|--|------------------------------------|---------------|---------------------|---------------------------------|---|----------|
| Steel, diamond-coated | 30 | 60 | -70 +250 | - | 5 | 314372 |
| Steel, corrugated | 30 | 32 | -70 +250 | Unhardened | 5 | 313900 |
| Steel, pr ³⁾ 0.7 mm | 30 | 32 | -80 +360 | 61 HRC | 5 | 313898 |
| Steel, corrugated | 30 | 60 | -70 +250 | Unhardened | 5 | 314364 |
| Steel, pr ³⁾ 0.7 mm relief grinding, with ejector | 7 | 32 | -70 + 250 | 61 HRC | 5 | 313906 |
| Steel, fsc ⁴⁾ 0.4 mm | 30 | 32 | -80 +360 | 61 HRC | 5 | 313896 |
| Steel, fsc ⁴⁾ 0.4 mm | 30 | 60 | -80 +360 | 61 HRC | 5 | 315031 |
| Steel, fsc ⁴⁾ 0.4 mm | 30 | 110 | -80 +360 | 61 HRC | 5 | 314348 |
| Steel, fsc ⁴⁾ 0.4 mm | 50 | 32 | -80 +360 | 61 HRC | 6 | 318698 |
| Oxide ceramic ⁵⁾ | 30 | 32 | -70 +80 | Knoop 2300 N/mm ² | 5 | 314356 |

¹⁾ Scope of delivery: 2 jaws per gripping area. A jaw with a small gripping area has a larger one opposite to it.

Special jaw inserts for seam slippage resistance testing to EN ISO 13936-1

| Version | Clamping surfac Height [mm] | e Width [mm] | Ambient temperature [°C] | Hardness | Jaw thick- ness (dimension x) [mm] | Item No. |
|---------------------------------|-----------------------------------|---------------------|--------------------------------|----------------------|--|--------------|
| Steel, Dr ¹⁾ 1 mm | 25/25 ²⁾ | 25/50 ²⁾ | -80 +360 | 61 HRC | 5 | 314374 |
| Vulkollan, smooth | 25/50 ²⁾ | 25/25 ²⁾ | -15 +80 | 88 ± 3 Shore (A) | 5 | Upon request |

¹⁾ Dr = roof grid

Special jaw inserts for testing to EN ISO 13934-2 (grab method tensile test)

| Version | Clamping surfac | | Ambient temperature | Hardness | Jaw thick- ness | Item No. |
|----------------------|---------------------|---------------------|---------------------|----------------------|--------------------------|----------|
| | Height [mm] | Width [mm] | [°C] | | (dimension x) [mm] | |
| Steel, smooth | 25/25 ¹⁾ | 25/50 ¹⁾ | -80 +360 | 61 HRC | 5 | 317909 |
| Vulkollan, smooth | 25/25 ¹⁾ | 25/50 ¹⁾ | -15 +80 | 88 ± 3 Shore (A) | 5 | 316500 |

¹⁾ Scope of delivery: 2 jaws per gripping area. A jaw with a small gripping area has a larger one opposite to it.

 $^{^{2)}\,\,}$ Scope of delivery: 2 jaws per type. There is a smooth jaw opposite each convex jaw.

³⁾ Pr = pyramid grid

⁴⁾ Fsc = fish scale

⁵⁾ Max. gripping force 10 kN

²⁾ Scope of delivery: 2 jaws per gripping area. A jaw with a small gripping area has a larger one opposite to it.



Jaws type 8287 and 8487

Special jaw inserts for testing to Marks&Spencer (please note section 4.8)

| Version | Clamping su Height [mm] | rface Width [mm] | Ambient temperature [°C] | Hardness | Jaw thick- ness (dimension x) [mm] | Item No. |
|---|-------------------------------|------------------------|--------------------------------|----------------------|--|----------|
| Vulkollan, smooth | 25 | 25 | -15 +80 | 88 ± 3 Shore (A) | 5 | 316504 |
| Vulkollan, smooth | 25 | 75 | -15 +80 | 88 ± 3 Shore (A) | 5 | 326013 |
| Smooth steel, flat against 3mm radius ¹⁾ | 30 | 50 | -80 +360 | 61 HRC | 5 | 326015 |
| Smooth steel, flat against 3mm radius ¹⁾ | 30 | 75 | -70 +250 | 61 HRC | 5 | 326060 |

¹⁾ Scope of delivery: 2 jaws per type. A flat jaw is opposed to a jaw with 3mm radius.

Metals

| wetais | |
|---------------------------|---|
| Material/application | Jaw version (recommended) |
| Metals | Steel, fsc/smooth/grooved, aluminum oxide |
| High-strength metal tapes | Oxide ceramic |
| Softer non-ferrous metals | Steel, st |
| Metal foils | Steel, fsc/smooth/diamond-coated, oxide ceramic |
| Thin sheet metals | Steel, fsc/diamond-coated, oxide ceramic |
| Wire | Plexiglas with transverse grooves/smooth, aluminum with transverse grooves, brass against smooth Vulkolan |
| Fine wire | Oxide ceramic, diamond-coated steel |
| Softer wire | Steel, fsc, aluminum oxide |
| | |

Plastics

| Plastics | |
|---|--|
| Material/application | Jaw version (recommended) |
| Plastics | Steel, fsc/dp/st/grooved |
| Fiber-reinforced plastics | Aluminum oxide; steel, smooth/dp |
| Plastic tapes | Steel, fsc/smooth/diamond-coated; Vulkolan, smooth/corrugated, oxide ceramic |
| Plastic films | Convex against smooth, e.g. convex aluminium against smooth Vukolan; smooth steel, smooth non-slip coating |
| Plastic threads | Corrugated Vulkolan, Plexiglas with transverse grooves/ smooth, aluminum with transverse grooves |
| Plastic fibers | Corrugated Vulkolan, smooth steel |
| Polystyrene | Vulkollan, corrugated |
| Elastomers | Non-slip coating, smooth steel, smooth Vulklolan |
| Elastomer dumbbell specimens | Steel, dp, relief ground |
| Solid elastomers with slip-prone surfaces | Steel, st/dp |
| Packing straps/tapes | Corrugated steel, aluminum oxide |
| Foam dumbbell specimens | Steel, fsc/st; corrugated Vulkolan |
| Natural rubber | Non-slip coating |
| Geoplastics/geocomposites | Smooth/corrugated steel; smooth/corrugated Vulkolan |
| | |



Jaws type 8287 and 8487

Textiles

| Jaw version (recommended) |
|--|
| Smooth/corrugated steel; smooth/corrugated Vulkolan; aluminum oxide |
| Vulkollan, smooth |
| Smooth Vulkolan, smooth steel against convex steel |
| Vulkollan, corrugated |
| Vulkollan, smooth |
| Brass/Vulkollan, smooth |
| Vulkollan, smooth |
| Plexiglas with transverse grooves/smooth, aluminum with transverse grooves |
| Vulkolan, smooth/corrugated; glass; polyamide |
| Steel, corrugated/smooth; Vulkolan, corrugated/smooth |
| Steel, fsc/smooth; Vulkolan, smooth/corrugated |
| Special jaws, see table Type 8287 |
| Steel, smooth; Vulkolan, smooth/corrugated |
| Steel, smooth; Vulkolan, smooth |
| Steel, smooth; Vulkolan, smooth/corrugated |
| |

Glass

| Material/application | Jaw version (recommended) |
|---------------------------|---------------------------|
| Glass fiber/glass fabrics | Vulkollan, smooth |

Paper

| Material/application | Jaw version (recommended) |
|-----------------------|------------------------------|
| Paper | Vulkollan, smooth |
| Board | Steel, fsc; Vulkolan, smooth |
| Tissue paper/products | Vulkollan, smooth |

Wood

| Material/application | Jaw version (recommended) |
|----------------------|------------------------------------|
| Wood | Steel, grooved/st |
| Plywood | Steel, st/dp/fsc |
| Wood veneers | Steel, dp/smooth; Vulkolan, smooth |

Building materials

| Material/application | Jaw version (recommended) |
|----------------------|------------------------------------|
| Bituminous materials | Aluminum, corrugated, with cooling |