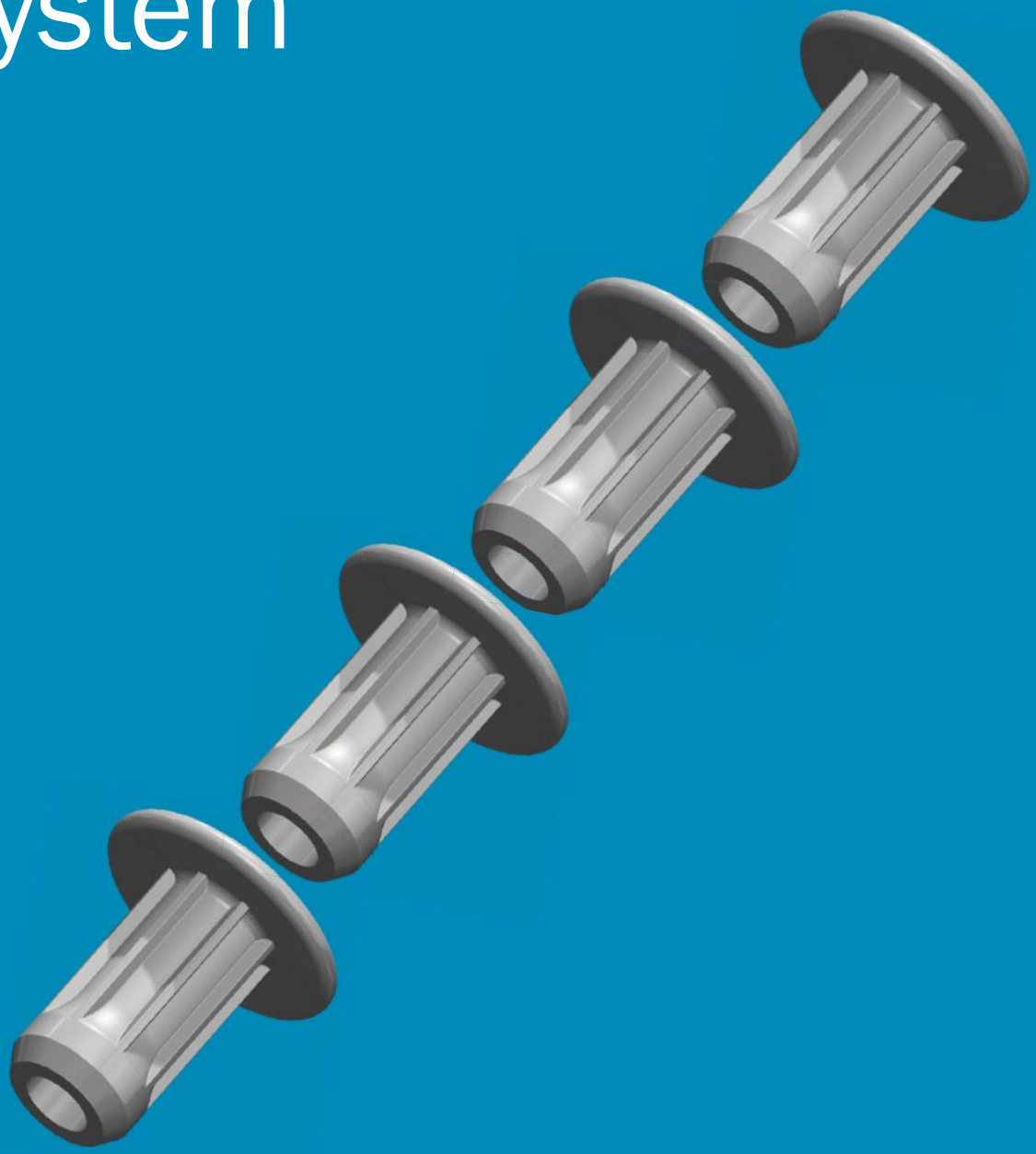
Avdel®

NeoSpeed® Speed Fastening® System



Since 1922 Since 1936 2010

infastech™
Our Technology, Your Success

NeoSpeed®

The new range of NeoSpeed® rivets takes Avdel's Speed Fastening® technology to the next level. This newly developed fastening system has been designed and optimised using class-leading finite element analysis techniques, and its unique splined rivet design is patent pending.

NeoSpeed® fastening is launched on the 75th anniversary of Avdel and it delivers simply the strongest, most versatile speed riveting system in the world.

Rapidly installed NeoSpeed® riveting now offers our customers real benefits:

- Improved quality and easier inspection
- Increased manufacturing throughput
- No metal waste
- Enhanced joint performance for less weight and size
- Lower assembly costs

Key features and benefits

Increased Manufacturing Throughput

- The NeoSpeed® fastening process delivers a throughput up to four times greater than traditional threaded or break-stem fasteners

Wider Grip Ranges

- Multi-grip capability accommodates wide variations in material thickness
- One rivet can be used to replace several standard grip fasteners

Greater Hole Size Tolerance

- 3x greater than standard breakstem rivets
- Enlarged front sheet hole for easier and quicker assembly (avoids misalignment issues)
- Far less sensitive to application variations

Hole-filling External Splines

- Fills rear sheet and oversize front sheet holes
- Potential to eliminate shear-slip & rattles
- Accommodates and fills misaligned holes

Easier Specification

- One-rivet x one-mandrel solution
- Fewer part numbers to hold in-stock

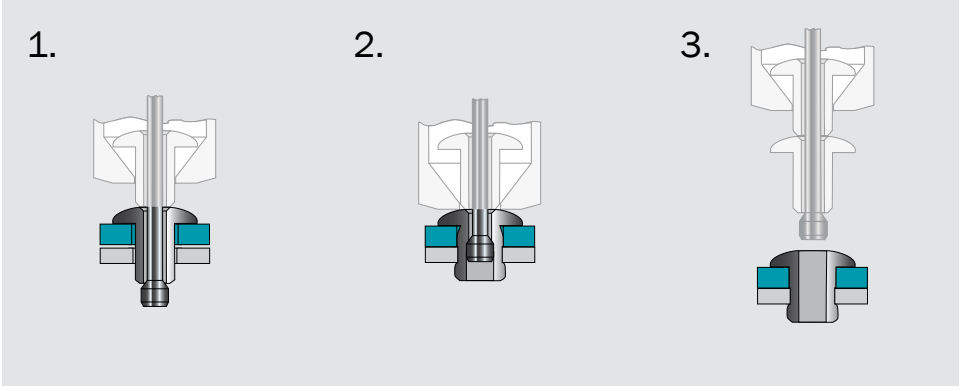
Improved Quality

- Fewer failure modes versus breakstem riveting
- Simple inspection of installed rivets
- Reliable riveting process – less chance of jaw clogging, stem jams, metallic debris, spent pintails dropped in application

Environmental Considerations

- No metal waste versus breakstem riveting
- Typically half the installed weight versus an equivalent breakstem rivet
- Reduced energy consumption – manufacturing, transportation, handling - both before and after placing in the application

Typical placing sequence



1. The mandrel with pre-loaded NeoSpeed® fastener is located in the hole.
2. Tool activation pulls the mandrel through the fastener, expanding it within the hole to provide high clamp and secure joints.
3. At the end of the installation cycle, the next fastener is automatically delivered to the nose of the tool, ready to repeat the assembly process.

Please visit our website www.avdel-global.com for fastener placing animations.

Speed Fastening® System

Range

- Material: Aluminium and steel; various finishes available
- Headform: Mushroom
- Sizes: 1/8" (ø 3.2 mm) to cover thickness from .016" - .339"*
  5/32" (ø 4.0 mm) to cover thickness from .020" - .358"*
  3/16" (ø 4.8 mm) to cover thickness from .024" - .362"

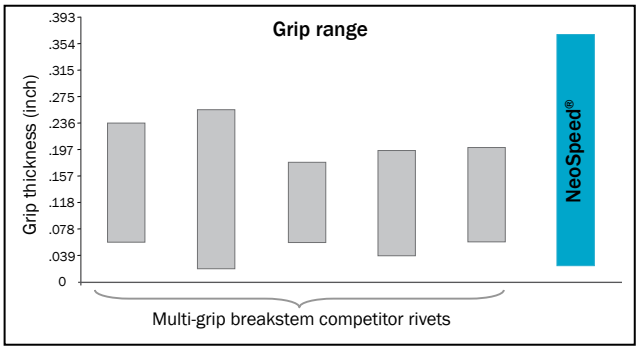
* Advance information only

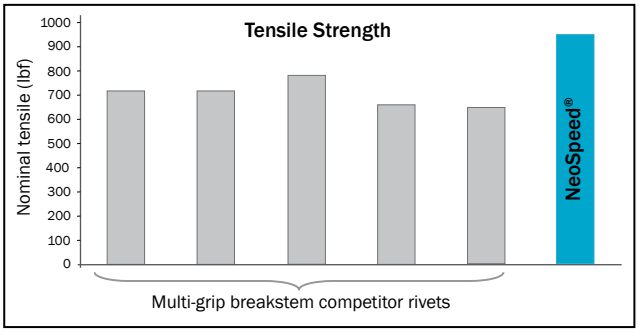
Other sizes, materials and headforms under development

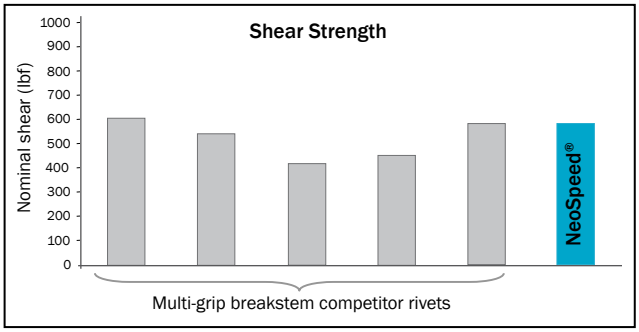
NeoSpeed® rivets placed in minimum and maximum grip

Placing performance

- Bigger grip range and wider hole size tolerances than any competitor blind rivet
- Unique hole-filling action accomodates misaligned joint holes
- Higher tensile strength than multi-grip breakstem rivals
- Better than average shear strength which is independent of grip
- Higher joint clamp loads and rigidity in shear







Assembly applications

- Automotive
- Electronics
- Domestic appliances
- Electrical equipment
- General light fabrication

Airbags

Interior

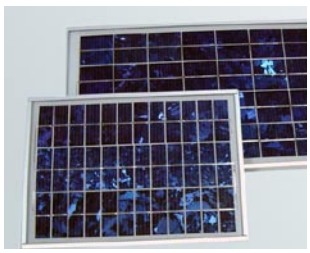
Seat & trim

Heating

Rapid action door

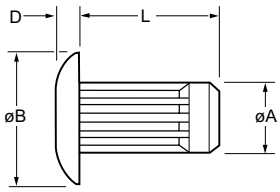
Computer cabinet

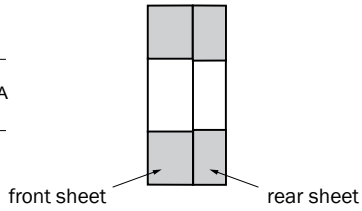
Solar panel



NeoSpeed®

Technical Data





ø nom.	øB max.	D max.	øA max.
1/8" (3.2 mm)	.257	.043	.1245
5/32" (4.0 mm)	.322	.049	.1535
3/16" (4.8 mm)	.382	.059	.1885

ø							L	Mushroom head Aluminium Alloy to BS1473, 5056A, DIN 1725, AlMg5, Werkstoff 3.3555 natural			Mushroom head Steel to BS 3111 Type 0, SAE1008, DIN 1654, QSt34-3 zinc plated, clear passivated		
			front sheet		rear sheet					Part No.			Part No.
nom.	min.	max.	min.	max.	min.	max.	max.	lbf[1)]	lbf[1)]		lbf[1)]	lbf[1)]	
1/8"* (3.2 mm)	.016	.079	.1319	.1425	.1285	.1349	.157	186	323	57101-03204	272	463	57121-03204
	.016	.177					.256			57101-03206			57121-03206
	.016	.339					.421			57101-03211			57121-03211
5/32"* (4.0 mm)	.020	.086	.1614	.1744	.1562	.1646	.185	281	429	57101-04005	395	710	57121-04005
	.020	.197					.295			57101-04007			57121-04007
	.020	.358					.460			57101-04012			57121-04012
3/16" (4.8 mm)	.024	.095	.1969	.2126	.1910	.2008	.212	373	676	57101-04805	539	944	57121-04805
	.024	.204					.322			57101-04808			57121-04808
	.024	.362					.488			57101-04812			57121-04812

all dimensions in inch; 1) typical values *Advance information only

Installation tools

The NeoSpeed® rivets can be placed with the Avdel installation tools type 7530, 7537 and 7271 using the following installation equipment. For further information please contact your local Avdel representative.

ø nom.	Nose Equipment Part No.	Mandrel Part No.	Follower Spring Part No.
1/8" (3.2 mm)	07530-03200	07530-06014	07150-06814
5/32" (4.0 mm)	07530-03300	07530-06015	07170-06875
3/16" (4.8 mm)	07530-03400	07530-06016	07170-06876

7530 Standard tool

7537

7271

Avdel USA LLC
614 NC Highway 200 South
Stanfield, North Carolina 28163
Tel. +1 704 888-7100 · Fax -0258
infoAvdel-USA@infastech.com

Avdel Canada Limited
1030 Lorimar Drive
Mississauga, Ontario L5S 1R8
Tel. +1 905 364-0664 · Fax -0678
infoAvdel-Canada@infastech.com

www.avdel-global.com

05b.2011