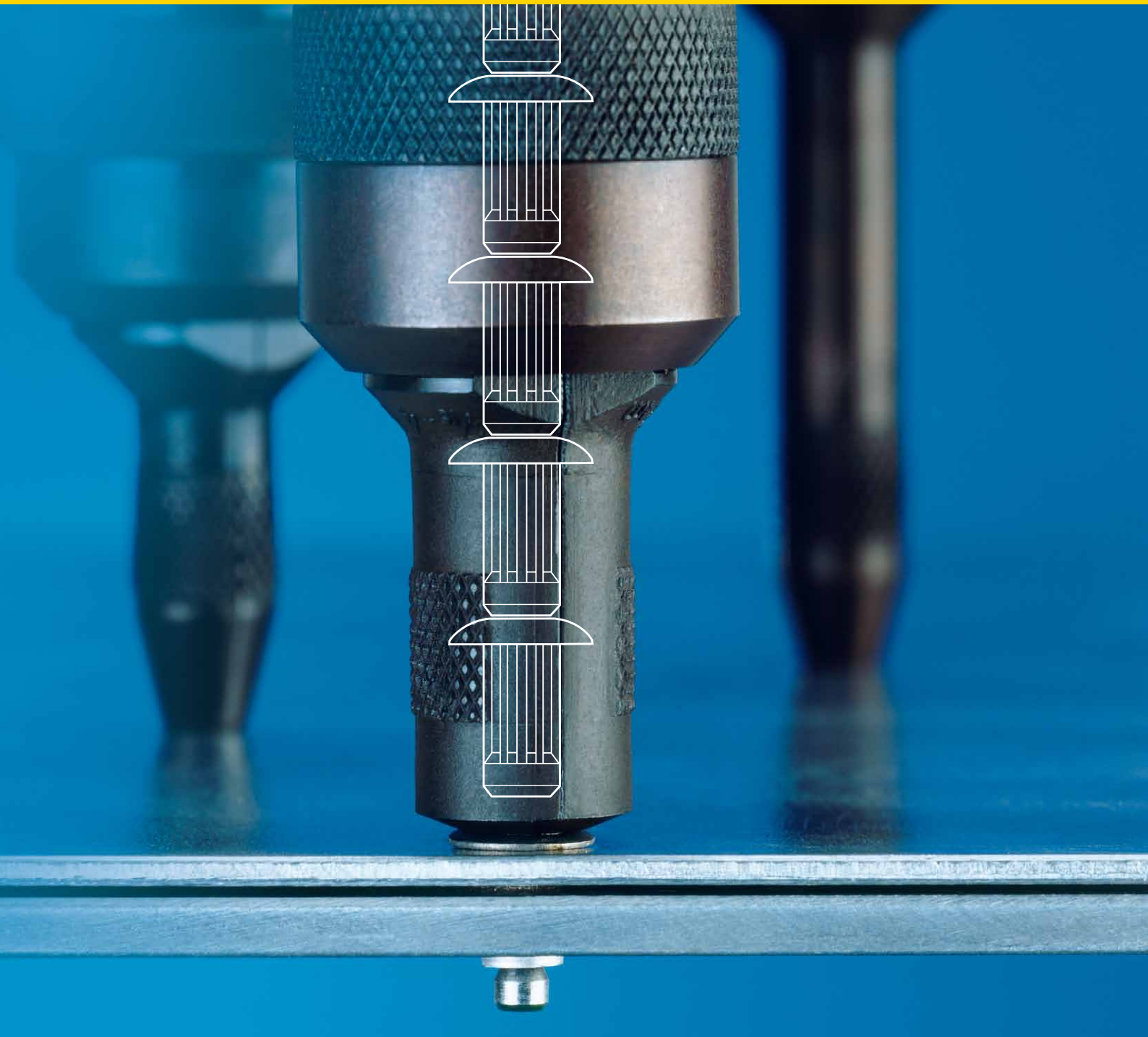


**STANLEY**<sup>®</sup>  
Engineered Fastening



NeoSpeed<sup>®</sup>  
Speed Fastening<sup>®</sup> System

**POP**<sup>®</sup>  **Avdel**<sup>®</sup>

# NeoSpeed®

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



NeoSpeed® fastening was 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 breakstem 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

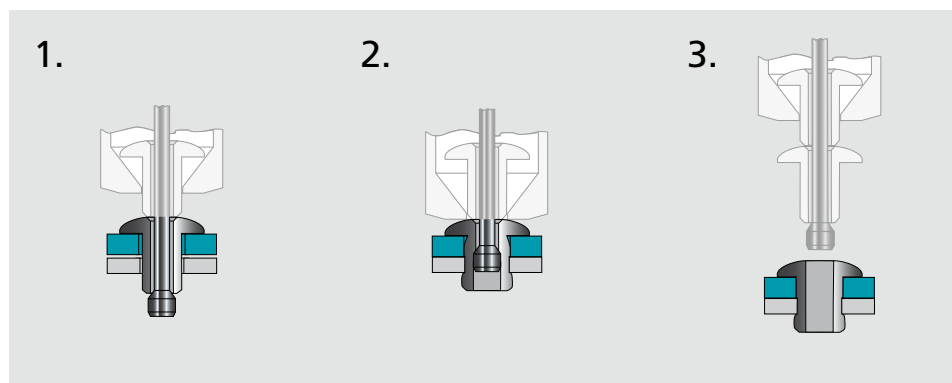
### Environmental Considerations

- 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



NeoSpeed® rivets placed in minimum and maximum grip

## 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.StanleyEngineeredFastening.com](http://www.StanleyEngineeredFastening.com) for fastener placing animations.

# Speed Fastening® System

## Range

• Material: Aluminium, Steel and A4 Stainless Steel (316); NeoSpeed® supply options: various finishes available

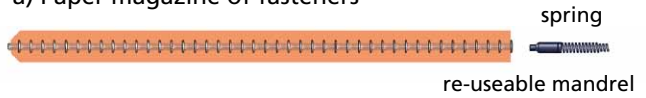
• Head styles: Mushroom, Countersunk

• Sizes:  $\varnothing 3.2$  mm (1/8"),  $\varnothing 4.0$  mm (5/32"),  $\varnothing 4.8$  mm (3/16")

Technical data: see page 4

Other sizes, materials and head styles under development

a) Paper magazine of fasteners



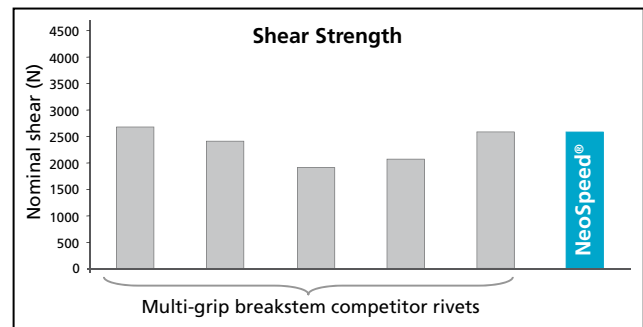
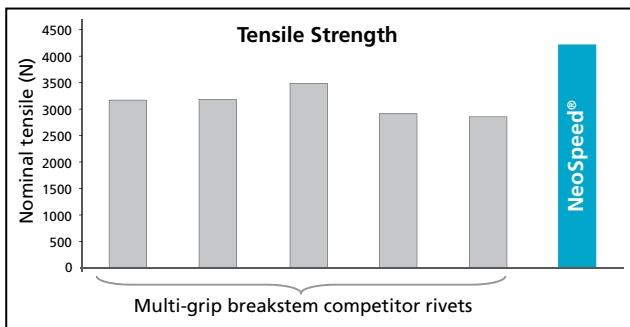
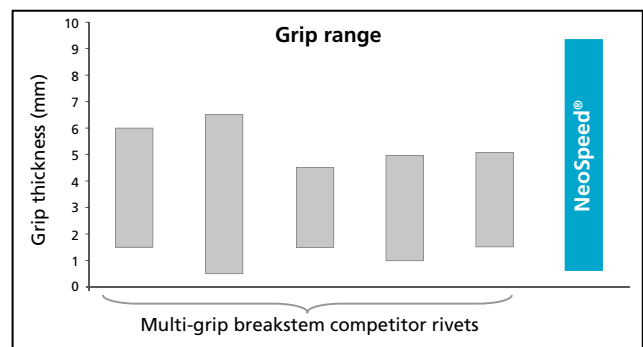
b) Pre-loaded disposable mandrel (Cartridge), not for Countersunk and A4 Stainless Steel



## Placing performance

- Bigger grip range and wider hole size tolerances than any competitor blind rivet
- Unique hole-filling action accommodates 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

Note: charts relate to  $\varnothing 4.8$  mm (3/16") steel rivets



## Assembly applications

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

Airbags



Interior



Seat & trim



Heating



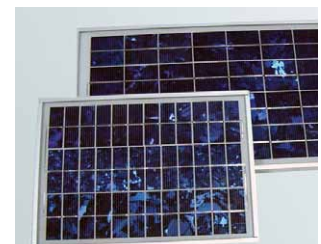
Rapid action door

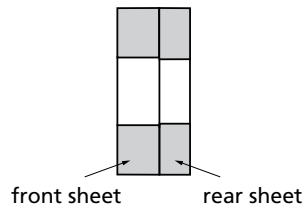
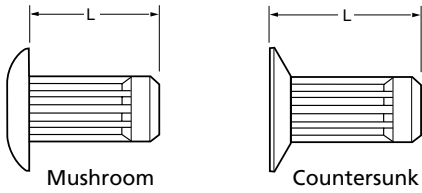


Computer cabinet



Solar panel





ø nom.	front sheet				rear sheet	
	Mushroom min.	Mushroom max.	Countersunk min.	Countersunk max.	min.	max.
3.2 (1/8")	3.35	3.62	3.26	3.34	3.26	3.42
4.0 (5/32")	4.10	4.43	-	-	3.97	4.18
4.8 (3/16")	5.00	5.40 <sup>1)</sup>	-	-	4.85	5.10

<sup>1)</sup> 5.30 for 57141 series

ø nom.	L			Mushroom head								
	min.	max.	max.	Aluminium Alloy natural			Steel zinc plated, clear passivated			A4 Stainless Steel passivated		
				kN <sup>2)</sup>	kN <sup>2)</sup>	Part No. supplied in paper magazine	kN <sup>2)</sup>	kN <sup>2)</sup>	Part No. supplied in paper magazine	kN <sup>2)</sup>	kN <sup>2)</sup>	Part No. supplied in paper magazine
3.2 (1/8")	0.4	2.0	4.8	0.76	1.25	57101-03204 <sup>3)</sup>	1.16	1.87	57121-03204 <sup>3)</sup>	1.85	2.75	57141-03204
		4.5	7.3			57101-03207 <sup>3)</sup>			57121-03207 <sup>3)</sup>			57141-03207
		6.6	9.5			-			-			57141-03209
		8.6	11.5			57101-03211 <sup>3)</sup>			57121-03211 <sup>3)</sup>			-
4.0 (5/32")	0.5	2.2	5.4	1.19	1.90	57101-04005 <sup>3)</sup>	1.80	3.00	57121-04005 <sup>3)</sup>	2.80	4.30	57141-04005
		5.0	8.0			57101-04007 <sup>3)</sup>			57121-04007 <sup>3)</sup>			57141-04007
		7.1	9.7			-	2.00	-	2.90	3.90	57141-04009	
		9.1	11.7			57101-04011 <sup>3)</sup>		2.80		57121-04011 <sup>3)</sup>	-	-
4.8 (3/16")	0.6	2.4	5.8	1.66	2.90	57101-04805 <sup>3)</sup>	2.60	4.20	57121-04805 <sup>3)</sup>	4.40	6.50	57141-04805
		5.2	8.9			57101-04808 <sup>3)</sup>			57121-04808 <sup>3)</sup>			57141-04808
		7.2	10.9			-			-			57141-04810
		9.2	12.7			57101-04812 <sup>3)</sup>			57121-04812 <sup>3)</sup>			-
Countersunk head												
3.2 (1/8")	1.0	2.0	4.8	N/A			0.94	1.92	57221-03204	N/A		
		4.5	7.3	N/A			1.15	1.76	57221-03207	N/A		
		8.6	11.5	N/A			1.15	1.68	57221-03211	N/A		

all dimensions in mm; 2) typical values; 3) for supply option "Cartridge": please change 6th digit to "1", e.g.: 57101-04011 => 57101-14011

### Installation

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

ø nom.	Head Style	Material	Nose Equipment Part No.	Mandrel <sup>4)</sup> Part No.	Follower Spring <sup>4)</sup> Part No.
3.2 (1/8")	Mushroom	Aluminium, Steel	07530-03200	07530-06014	07150-06814
	Countersunk	Stainless Steel		07530-06804	
4.0 (5/32")	Mushroom	Aluminium, Steel	07530-03300	07530-06015	07170-06875
		Stainless Steel		07530-06805	
4.8 (3/16")	Mushroom	Aluminium, Steel	07530-03400	07530-06016	07170-06876
		Stainless Steel		07530-06806	

<sup>4)</sup> for use with paper magazines



**STANLEY**  
Engineered Fastening

Avdel UK Limited  
Stanley House, Works Road  
Letchworth Garden City, Hertfordshire SG6 1JY  
Tel. +44 (0)1582 900-000 · Fax -001  
enquiries2@sbdinc.com

www.StanleyEngineeredFastening.com

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Your local STANLEY Engineered Fastening representative is at your disposal should you need to confirm latest information.