



NeoBolt[®] Lockbolt System

High-strength • Vibration resistant • Eco-friendly

NeoBolt®

NeoBolt is a non-breakstem steel lockbolt fastening system designed for use in heavy-duty structural applications. The pin doesn't break when the fastener is installed. The two-piece fasteners, designed by STANLEY Engineered Fastening, feature unique design characteristics such as annular locking grooves for unmatched vibration resistance, fatigue performance and avoidance of loosening by unscrewing. The NeoBolt program comprises a wide range of fastener diameters and lengths. Existing, well-proven Avdel® placing tools are adapted specifically to suit the full range of NeoBolt sizes.

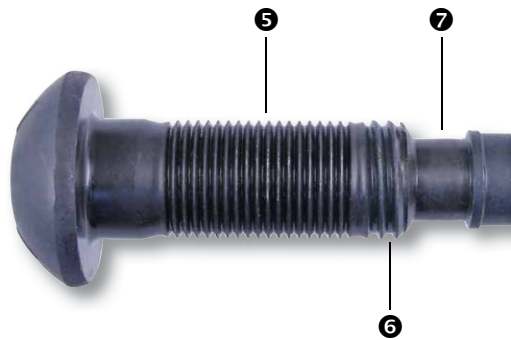


Product Details



NeoBolt pin head markings:

- 1 Manufacturer trademark AV-symbol
- 2 Strength Grade markings
- 3 Grip length code
- 4 Batch reference



Design characteristics of the pin:

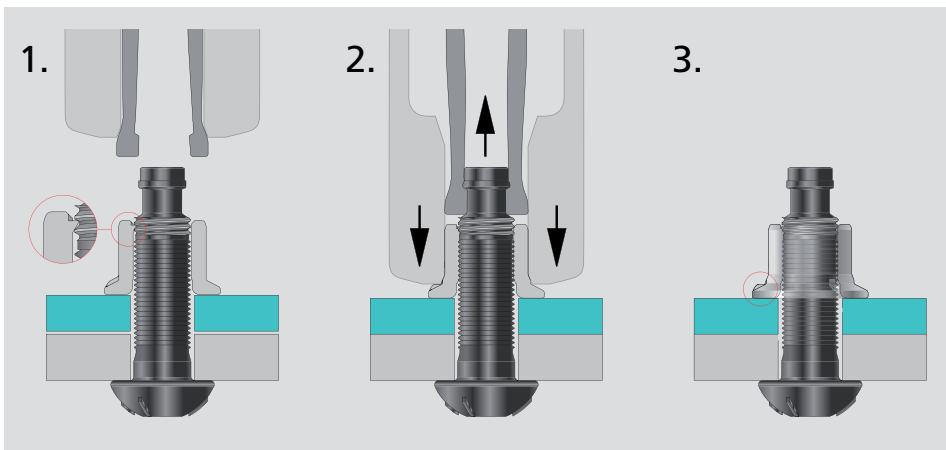
- 5 Annular, fine pitch locking grooves for optimum strength, vibration resistance and avoidance of loosening by unscrewing
- 6 Helical 'fit-up' form to allow easy, rapid pre-assembly of collar on pin
- 7 Single pull-groove tail form unique to NeoBolt



Collar design includes:

- 8 Manufacturer trademark AV-symbol
- 9 Radial bars on flange for visual verification of full swage
- 10 Single tab in collar bore enables 'fit-up' with the helical form on the pin

Typical placing sequence



1. The NeoBolt pin is placed through the materials to be joined and the collar screwed onto the pin thread with just a single turn. Place the tool with open collet fully over the pin tail end.
2. At tool actuation the collet closes and pulls the pin. The anvil moves onto the collar, closes any joint gaps and swages the collar wall down into the pin locking grooves.
3. Once full swage load is reached, the tool travel stops and returns to release the pin. The joint is complete.

Please visit our website www.StanleyEngineeredFastening.com for fastener placing animations.

Vibration resistant Lockbolt System

Key features and benefits

No pin break:

- No metal waste, eco-friendly
- Eliminate dropped stems improving working area safety
- Avoid corrosion at stem break point (vs. traditional lockbolts)
- Reduced pin size and weight for lower warehousing and shipping cost

Shockless Installation:

- Reduces operator fatigue
- Improves tool life and components' durability
- Reduces installation noise




Fast & Consistent Installation:

- Fine pitch pin groove design for superior vibration resistance vs. traditional lockbolts and nut & bolt settings
- Collar 'fit-up' feature for easy pre-assembly of the joint, avoids the need to support the pin during the placing operation, ideal for upside-down installation
- Radial bar indicators for quick visual swage inspection upon placing
- Fast, not operator reliant installation for improved productivity

Maintenance Free:

- No torque or re-torque is required

Range & Performance Data

Ø nom.	Standard surface*		No. diff. lengths	Grip range (with recommended Avdel installation tools, see page 4)	 kN typical	 kN typical	 kN typical
	Pin	Collar					
4.8 mm (3/16")	Silver Magni 565	Zinc plated	9	1.33 - 35.23 mm	12.2	7.4	4.7
6.4 mm (1/4")			9	3.33 - 35.23 mm	18.3	13.4	8.4
8.0 mm (5/16")			9	3.73 - 35.93 mm	34.9	24.2	16.0
9.6 mm (3/8")			10	1.45 - 42.90 mm	46.2	35.1	22.1
12.7 mm (1/2")	Black oxide (oiled)	Zinc plated	19	7.50 - 130.05 mm	86.2	79.6	57.7
16.0 mm (5/8")			19	4.90 - 130.05 mm	145.1	126.5	91.7
19.1 mm (3/4")			19	9.85 - 130.75 mm	187.2	187.3	135.8
25.4 mm (1")			22	13.80 - 158.35 mm	326.7	339.6	246.2

Pin Head Style: Round head

Material: Medium carbon Steel

Collar Style: Flanged

Material: Low carbon Steel

* Other surface finishes are available upon request.

Assembly applications

- Railway
 - Railcar
 - Rolling Stock
 - Track / Infrastructure
- Truck & Trailer
- Commercial Vehicles
- Solar & Wind Energy
- Bridge Building
- Mining Equipment
- Screening Equipment
- Fencing & Security Screens
- Construction
- Overland Infrastructure
- Power & Utility Services



NeoBolt lockbolts can be placed with a range of installation tools depending on the fastener diameter.

Genesis® nG3 LB



73200



7287



734 AV
(Enerpac® PRO series)



AV15



AV30



AV50



Installation Tools - Model and Part Number of Base Tool						
	nG3 LB 71256-02000	73200 73200-02000	7287 07287-00200	AV15* 73432-02000	AV30* 73434-02000	AV50* 73435-02000
NeoBolt Size	Nose Equipment - Part Number for above Model					
4.8 mm (3/16")	71213-05500					
6.4 mm (1/4")	71213-06800					
8.0 mm (5/16")		73200-05000				
9.6 mm (3/8")			73200-05100			
12.7 mm (1/2")				73432-03300		
16.0 mm (5/8")					73434-03200	
19.1 mm (3/4")					73434-03300	
25.4 mm (1")						73435-03200

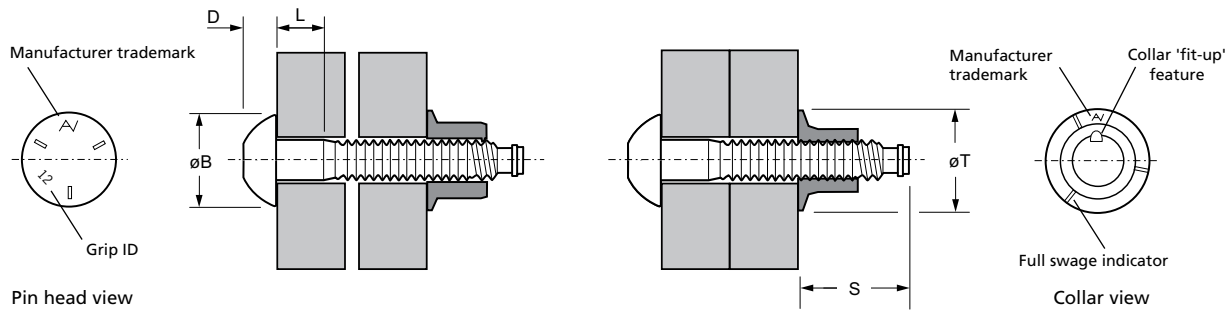
*All AV Series tools require Enerpac Power Unit for operation. Details can be found in the 734 AV Series brochure.

For further information, please check our website or contact your local STANLEY Engineered Fastening representative.



English	Français	Deutsch	Italiano	Español
Round head	Tête ronde	Rundkopf	Testa tonda	Cabeza alomada
Pin: Medium carbon steel ≤ ø9.6 = Silver Magni 565 ¹⁾ ≥ ø12.7 = Black oxide (oiled) ¹⁾	Tige: Acier ≤ ø9.6 = Silver Magni 565 ¹⁾ ≥ ø12.7 = Oxyde noire (huilé) ¹⁾	Bolzen: Stahl ≤ ø9.6 = Silver Magni 565 ¹⁾ ≥ ø12.7 = Schwarz/brüniert (geölt) ¹⁾	Bullone: Acciaio ≤ ø9.6 = Silver Magni 565 ¹⁾ ≥ ø12.7 = Anodizzato nero (lubrificato) ¹⁾	Vástago: Acero ≤ ø9.6 = Silver Magni 565 ¹⁾ ≥ ø12.7 = Pavonado (lubricado) ¹⁾
Collar: Low carbon steel Zinc plated ¹⁾	Bague: Acier Zingué ¹⁾	Schließring: Stahl Verzinkt ¹⁾	Collare: Acciaio Zincato ¹⁾	Collar: Acero Zincado ¹⁾

1) other surface finishes available upon request / d'autres finitions de surfaces disponibles sur demande / andere Oberflächen auf Anfrage / altre finiture superficiali sono disponibili su richiesta / disponibles otros acabados superficiales bajo pedido

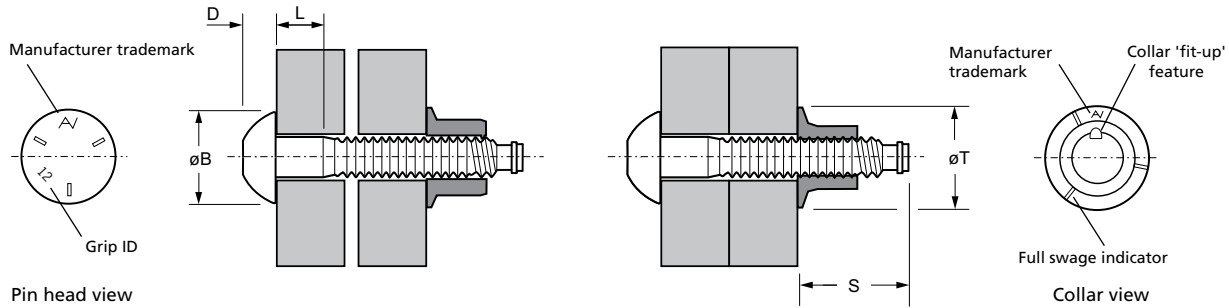


ø nom.	e			L		øB nom.	D nom.	S at grip e max.	øT nom.	Part No/ref	
	ID	e min. ²⁾	e max. ²⁾	min.	max.					Pin	Collar
4.8 (3/16")	4	1.33	9.83	5.00	5.56	2.46	8.64	3.01	9.60	12851-60604	12801-30600
	6	4.50	13.00			5.64				12851-60606	
	8	7.68	16.18			8.81				12851-60608	
	10	10.85	19.35			11.99				12851-60610	
	12	14.03	22.53			15.16				12851-60612	
	14	17.20	25.70			18.34				12851-60614	
	16	20.38	28.88			21.51				12851-60616	
	18	23.55	32.05			24.69				12851-60618	
6.4 (1/4")	4	3.33	9.83	6.60	7.13	1.98	11.47	4.01	12.80	12851-60804	12801-30800
	6	6.50	13.00			5.16				12851-60806	
	8	9.68	16.18			8.33				12851-60808	
	10	12.85	19.35			11.51				12851-60810	
	12	16.03	22.53			14.68				12851-60812	
	14	19.20	25.70			17.86				12851-60814	
	16	22.38	28.88			21.03				12851-60816	
	18	25.55	32.05			24.21				12851-60818	
8.0 (5/16")	4	3.73	10.53	8.20	9.12	1.68	14.34	5.02	15.99	12851-61004	12801-31000
	6	6.90	13.70			4.85				12851-61006	
	8	10.08	16.88			8.03				12851-61008	
	10	13.25	20.05			11.20				12851-61010	
	12	16.43	23.23			14.38				12851-61012	
	14	19.60	26.40			17.55				12851-61014	
	16	22.78	29.58			20.73				12851-61016	
	18	25.95	32.75			23.90				12851-61018	
20	29.13	35.93	27.08	12851-61020							

all dimensions in mm / en millimètre / alle Maße in mm / in millimetri / en milímetros

2) Grip range with recommended Avdel installation tools / Plage de serrage avec les outils d'installation Avdel recommandés / Klemmbereich mit empfohlenen Avdel Verarbeitungsgeräten / Gamma grip con i raccomandati strumenti di installazione Avdel / Rango de espesores con las herramientas de colocación recomendadas Avdel

NeoBolt® 12851 Series
Lockbolt Fastener



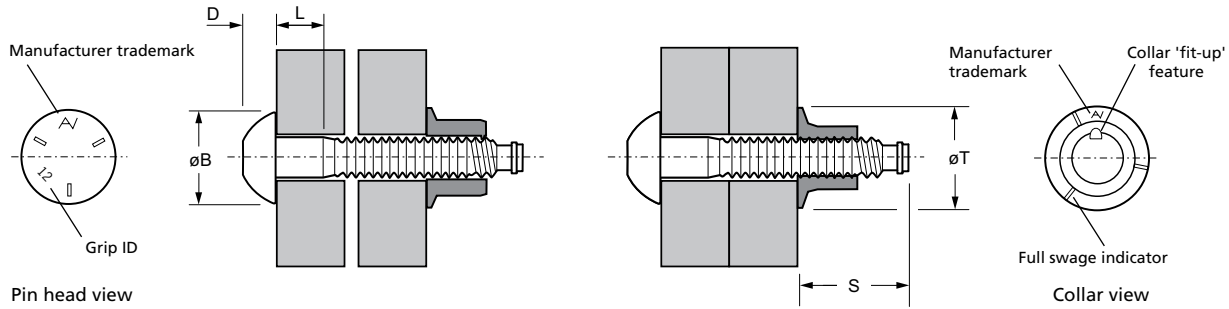
Ø nom.	e			L		ØB nom.	D nom.	S at grip e max.	ØT nom.	Part No/ref	
	ID	e min. ²⁾	e max. ²⁾	min.	max.					Pin	Collar
9.6 (3/8")	4	1.45	11.15	9.80	10.71	1.55	17.21	6.02	19.19	12851-61204	12801-31200
	6	4.63	14.33			4.72					
	8	7.80	17.50			7.90					
	10	10.98	20.68			11.07					
	12	14.15	23.85			14.25					
	14	17.33	27.03			17.42					
	16	20.50	30.20			20.60					
	18	23.68	33.38			23.77					
	20	26.85	36.55			26.95					
	24	33.20	42.90			33.30					
12.7 (1/2")	4	7.50	15.75	13.10	14.28	4.60	22.94	8.00	26.15	12851-11604	12801-31600
	8	13.85	22.10			10.95					
	12	20.20	28.45			17.30					
	16	26.55	34.80			23.65					
	20	32.90	41.15			30.00					
	24	39.25	47.50			36.35					
	28	45.60	53.85			42.70					
	32	51.95	60.20			49.05					
	36	58.30	66.55			55.40					
	40	64.65	72.90			61.75					
	44	71.00	79.25			68.10					
	48	77.35	85.60			74.45					
	52	83.70	91.95			80.80					
	56	90.05	98.30			87.15					
	60	96.40	104.65			93.50					
64	102.75	111.00	99.85								
68	109.10	117.35	106.20								
72	115.45	123.70	112.55								
76	121.80	130.05	118.90								
16.0 (5/8")	4	4.90	15.75	16.30	17.46	4.60	29.00	10.00	31.74	12851-12004	12801-32000
	8	11.25	22.10			10.95					
	12	17.60	28.45			17.30					
	16	23.95	34.80			23.65					
	20	30.30	41.15			30.00					
	24	36.65	47.50			36.35					
	28	43.00	53.85			42.70					
	32	49.35	60.20			49.05					
	36	55.70	66.55			55.40					
	40	62.05	72.90			61.75					
	44	68.40	79.25			68.10					
	48	74.75	85.60			74.45					
	52	81.10	91.95			80.80					

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NeoBolt® 12851 Series

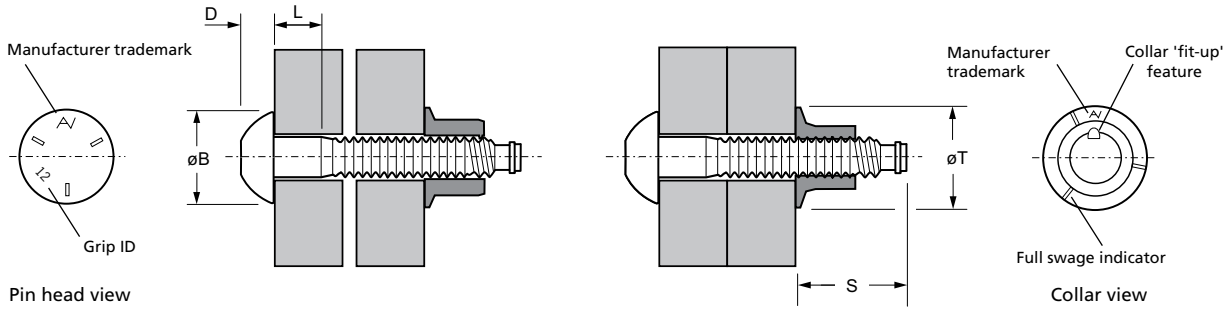
Lockbolt Fastener



ø nom.	e		L		øB nom.	D nom.	S at grip e max.	øT nom.	Part No/ref		
	ID	e min. ²⁾	e max. ²⁾	min.					max.	Pin	Collar
16.0 (5/8")	56	87.45	98.30	16.30	17.46	29.00	10.00	31.74	e min. = 50.90 e max. = 40.05	12851-12056	12801-32000
	60	93.80	104.65							93.50	
	64	100.15	111.00							99.85	
	68	106.50	117.35							106.20	
	72	112.85	123.70							112.55	
	76	119.20	130.05							118.90	
19.1 (3/4")	4	9.85	16.45	19.60	20.63	35.52	13.02	38.09	e min. = 55.37 e max. = 48.77	12851-12404	12801-32400
	8	16.20	22.80							10.95	
	12	22.55	29.15							17.30	
	16	28.90	35.50							23.65	
	20	35.25	41.85							30.00	
	24	41.60	48.20							36.35	
	28	47.95	54.55							42.70	
	32	54.30	60.90							49.05	
	36	60.65	67.25							55.40	
	40	67.00	73.60							61.75	
	44	73.35	79.95							68.10	
	48	79.70	86.30							74.45	
	52	86.05	92.65							80.80	
	56	92.40	99.00							87.15	
	60	98.75	105.35							93.50	
	64	105.10	111.70							99.85	
68	111.45	118.05	106.20								
72	117.80	124.40	112.55								
76	124.15	130.75	118.90								
25.4 (1")	8	13.80	25.00	26.00	28.57	46.75	15.63	47.61	e min. = 74.01 e max. = 62.81	12851-13208	12801-33200
	12	20.15	31.35							17.30	
	16	26.50	37.70							23.65	
	20	32.85	44.05							30.00	
	24	39.20	50.40							36.35	
	28	45.55	56.75							42.70	
	32	51.90	63.10							49.05	
	36	58.25	69.45							55.40	
	40	64.60	75.80							61.75	
	44	70.95	82.15							68.10	
	48	77.30	88.50							74.45	
	52	83.65	94.85							80.80	
	56	90.00	101.20							87.15	
	60	96.35	107.55							93.50	
64	102.70	113.90	99.85								
68	109.05	120.25	106.20								

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2) Grip range with recommended Avdel installation tools / Plage de serrage avec les outils d'installation Avdel recommandés / Klemmbereich mit empfohlenen Avdel Verarbeitungsgeräten / Gamma grip con i raccomandati strumenti di installazione Avdel / Rango de espesores con las herramientas de colocación recomendadas Avdel



Ø nom.	e		L		ØB nom.	D nom.	S at grip e max.	ØT nom.	Part No/ref	
	ID	e min. ²⁾	e max. ²⁾	min.					max.	Pin
25.4 (1")	72	115.40	126.60	26.00	28.57	46.75	15.63	47.61	12801-33200	12851-13272
	76	121.75	132.95							12851-13276
	80	128.10	139.30							12851-13280
	84	134.45	145.65							12851-13284
	88	140.80	152.00							12851-13288
	92	147.15	158.35							12851-13292

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Ø nom.	kN ³⁾	kN ³⁾	kN ³⁾
4.8 (3/16")	12.2	7.4	4.7
6.4 (1/4")	18.3	13.4	8.4
8.0 (5/16")	34.9	24.2	16.0
9.6 (3/8")	46.2	35.1	22.1
12.7 (1/2")	86.2	79.6	57.7
16.0 (5/8")	145.1	126.5	91.7
19.1 (3/4")	187.2	187.3	135.8
25.4 (1")	326.7	339.6	246.2

3) Typical strength values; note that actual joint strength will depend upon joint material type, thickness, etc. and so application testing is always recommended.

Les valeurs typiques de résistance; notez que la résistance actuel de l'assemblage dépend du type de matériau utilisé, épaisseur etc... c'est ainsi qu'il est toujours recommandé de faire des test d'assemblage.

Typische Festigkeitswerte; bitte beachten Sie, dass die tatsächliche Festigkeit von Bauteilmaterial, Materialstärke etc. abhängt - ein Applikationstest ist immer empfohlen.

Valori di resistenza tipici, si noti che la forza congiunta effettiva dipenderà dal tipo di materiale, spessore, ecc e quindi un test delle applicazioni è sempre consigliato.

Valores de resistencia típicos, tenga en cuenta que la fuerza conjunta real dependerá del tipo de material de unión, espesor, etc., y así las pruebas de aplicaciones siempre se recomienda.

STANLEY

Engineered Fastening

www.zygology.com

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Data shown is subject to change without prior notice as a result of continuous product development and improvement policy.



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