



SPACERS & PILLARS

www.trfastenings.com

Edition 5

Product Information & Specials

Product Information

All of our pillars come as standard with undercut or non standard without undercut.

Advantages of undercut (standard):

- No need for washers in assembly
- Flush fit

Standard spacers:

- Brass, steel, stainless steel and aluminium
- Key lengths in brass:
 - Width across flats 4 to 13 with M2, M2.5, M3, M4, M5, M6, ST2.2, ST2.4, ST2.8, ST3.2 and ST4.2
 - Lengths - see catalogue

Plastic spacers with brass thread inserts:

- Width across flats 5, 6, 8 and 10

Surfaces are available with various coatings:

- Tin plating, zinc plating, nickel plating, gold plating, chromate coated



Specials

- Thread sizes from 1mm to 32mm
- Lengths up to 2000mm
- Available in a wide range of materials. Small batch plastic parts where injection moulding is not feasible
- Special parts can be manufactured to customer drawings. Bespoke machinery enables us to offer a solution for complicated designs and installations

Contact us with your requirements and we will find a solution for you.

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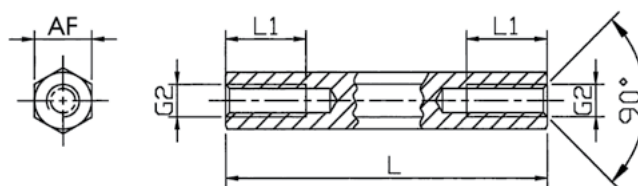
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Brass Nickel Plated

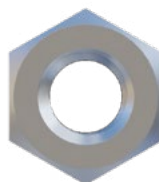
Product Overview

- Material acc. to DIN 17660: Cu Zn 39 Pb 3
- Min. tensile strength: 430 N/mm²
- Surface finish acc. to DIN 267: nickel plated (G 3 E)
- Material number: 2.0401
- Tolerance for length dimensions: +/- 0.1 mm
- All products are also available without undercut



Other materials available:

- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HSBFF

Internal Thread Lengths (mm)						
L1	G2					
Length	M2	M2.5	M3	M4	M5	M6
5	5	5	5	5	5	5
6	6	6	6	6	6	6
8	8	8	8	8	8	8
10	10	10	10	10	10	10
12	6	12	12	12	12	12
15	6	15	15	15	15	15
18	6	9	9	9	9	9
from 20	6	10	10	10	10	10

Preferred Range

		Standard Lengths (mm)																							
		5	6	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Thread x Across Flats (AF)	M2 x 4	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M2.5 x 4	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M2.5 x 5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	M3 x 5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M5 x 8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M6 x 10				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



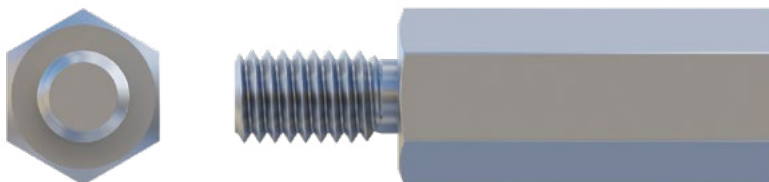
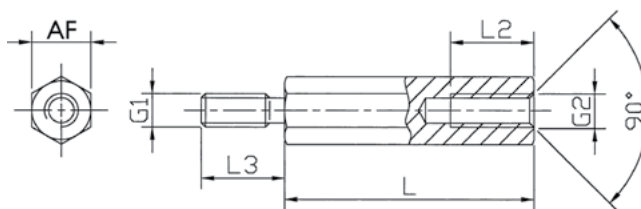
Brass Nickel Plated

Product Overview

- Material acc. to DIN 17660: Cu Zn 39 Pb 3
- Min. tensile strength: 430 N/mm²
- Surface finish acc. to DIN 267: nickel plated (G 3 E)
- Material number: 2.0401
- Tolerance for length dimensions: +/- 0.1 mm
- All products are also available without undercut

Other materials available:

- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/F - Male / Female Thread Pillar - HPBMF

Internal Thread Lengths (mm)						
L2 (mm)	G2					
Length	M2	M2.5	M3	M4	M5	M6
5	3	3	3	3	3	-
6	4	4	4	4	4	-
8	5	5	5	5	5	-
10	6	6	6	6	6	6
12	6	7	7	7	7	7
15	6	10	10	10	10	10
18	6	10	10	10	10	10
from 20	6	10	10	10	10	12

External Thread Lengths (G1) (mm)						
	M2	M2.5	M3	M4	M5	M6
L3	5	6	6k 8	8	8	10

Preferred Range

		Standard Lengths (mm)																								
		5	6	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Thread x Across Flats (AF)	M2 x 4	•	•	•	•	•	•	•	•	•	•	•	•	•												
	M2.5 x 4	•	•	•	•	•	•	•	•	•	•	•	•	•												
	M2.5 x 5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M3 x 5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	M5 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					

M3, 8mm part number example - HPBMF3-10-5

M3, 6mm part number example - HPBMF3-10K-5

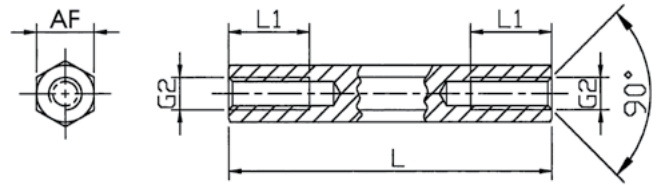
Note: M3 threads also come in 6mm external thread lengths - add suffix K to the length as per example.



Steel Zinc Plated (CR3)

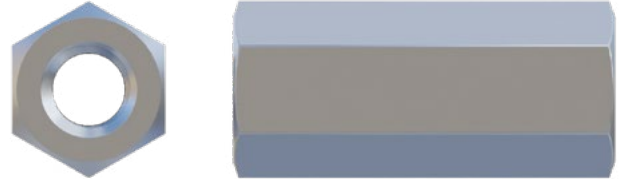
Product Overview

- Material acc. to DIN 176: 11 SMn Pb30
- Minimum tensile strength: 500 N/mm²
- Surface finish acc. to DIN 267: Zinc (A3 F)
- Material number: 1.0718
- Tolerance for length dimensions +/- 0.1 mm
- (DIN 2768-m applies to AF13)
- All products are also available without undercut



Other materials available:

- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HSSFF

Internal Thread Lengths (mm)							
L1	G2						
Length	M2	M2.5	M3	M4	M5	M6	M8
5	5	5	5	5	5	5	-
8	8	8	8	8	8	8	-
10	10	10	10	10	10	10	-
12	6	12	12	12	12	12	-
15	6	15	15	15	15	15	15
18	6	9	9	9	9	9	-
20	6	10	10	10	10	10	20
from 30	6	10	10	10	10	12	14

Preferred Range

		Standard Lengths (mm)																						
		5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Thread x Across Flats (AF)	M2 x 4	•	•	•	•	•	•	•	•	•	•													
	M2.5 x 4	•	•	•	•	•	•	•	•	•	•													
	M3 x 5	•	•	•	•	•	•	•	•	•	•	•												
	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•											
	M3 x 6	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	M4 x 8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	M5 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
	M8 x 13					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



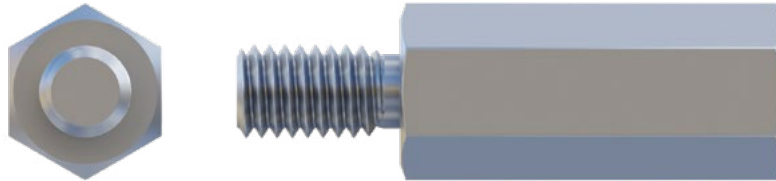
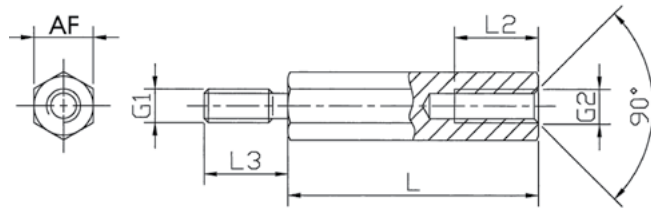
Steel Zinc Plated (CR3)

Product Overview

- Material acc. to DIN 17660: Cu Zn 39 Pb 3
- Min. tensile strength: 430 N/mm²
- Surface finish acc. to DIN 267: nickel plated (G 3 E)
- Material number: 2.0401
- Tolerance for length dimensions: +/- 0.1 mm
- All products are also available without undercut

Other materials available:

- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/F - Male / Female Thread Pillar - HPSMF

Internal Thread Lengths (mm)							
L2	G2						
Length	M2	M2.5	M3	M4	M5	M6	M8
5	3	3	3	3	3	-	-
8	5	5	5	5	5	-	-
10	6	6	6	6	6	6	-
12	6	7	7	7	7	7	-
15	6	10	10	10	10	10	10
18	6	10	10	10	10	10	-
from 20	6	10	10	10	10	12	14

External Thread Lengths (G1) (mm)							
L3	M2	M2.5	M3	M4	M5	M6	M8
5	5	6	6	8	8	10	14

Preferred Range

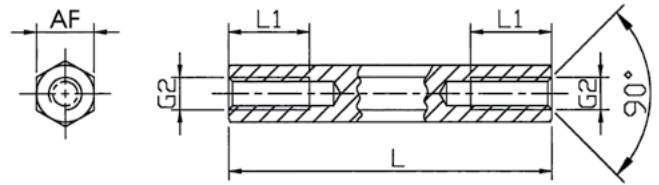
		Standard Lengths (mm)																						
		5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Thread x Across Flats (AF)	M2 x 4	•	•	•	•	•	•	•	•	•	•													
	M2.5 x 4	•	•	•	•	•	•	•	•	•	•													
	M3 x 5	•	•	•	•	•	•	•	•	•	•	•												
	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•											
	M3 x 6	•	•	•	•	•	•	•	•	•	•	•	•	•										
	M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
	M4 x 8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	M5 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
	M8 x 13				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Part number example - HPSMF6-50-10

Stainless Steel

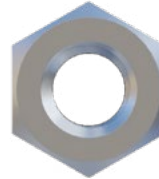
Product Overview

- Material acc. to EN DIN 10088: X8CrNiS18-9
- Minimum tensile strength: 750 N/mm²
- Material number: 1.4305
- Tolerance for length dimensions +/- 0.1 mm (DIN 2768-m applies to AF13)
- All products are also available without undercut



Other materials available:

- Brass
- Steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HS2FF

Internal Thread Lengths (mm)					
L1	G2				
Length	M3	M4	M5	M6	M8
5	5	5	-	-	-
8	8	8	8	-	-
10	10	10	10	10	-
12	12	12	12	12	-
15	7	15	15	15	15
18	7	9	9	9	18
20	7	9	10	10	20
25	7	9	10	12	12
from 30	7	9	10	12	14

Preferred Range

		Standard Lengths (mm)																						
		5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Thread x Across Flats (AF)	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
	M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M5 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M8 x 13				•	•	•	•	•	•	•	•	•		•		•		•		•		•	



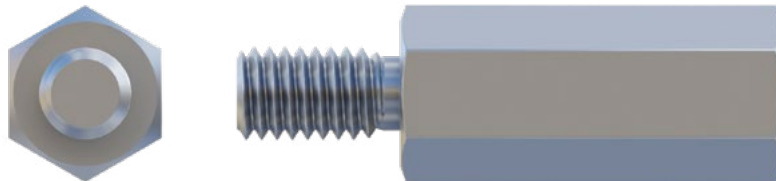
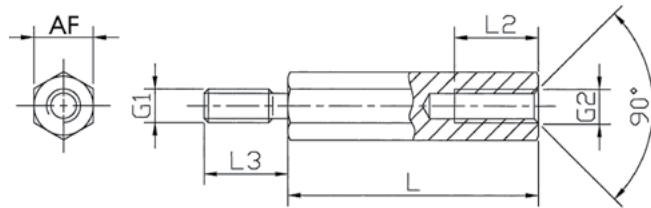
Stainless Steel

Product Overview

- Material acc. to EN DIN 10088: X8CrNiS18-9
- Minimum tensile strength: 750 N/mm²
- Material number: 1.4305
- Tolerance for length dimensions +/- 0.1 mm (DIN 2768-m applies to AF13)
- All products are also available without undercut

Other materials available:

- Brass
- Steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/F - Male / Female Thread Pillar - HP2MF

Internal Thread Lengths (mm)					
L2	G2				
Length	M3	M4	M5	M6	M8
5	2.5	-	-	-	-
8	5	5	-	-	-
10	6	6	6	5	-
12	7	8	8	7	-
15	7	9	10	10	10
18	7	9	10	12	12
from 20	7	9	10	12	14

External Thread Lengths (G1) (mm)					
L3	M3	M4	M5	M6	M8
	6	8	8	10	14

Preferred Range

		Standard Lengths (mm)																							
		5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Thread x Across Flats (AF)	M3 x 5.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	M4 x 7		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M5 x 8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M8 x 13					•		•	•	•	•	•	•	•		•		•		•		•		•	

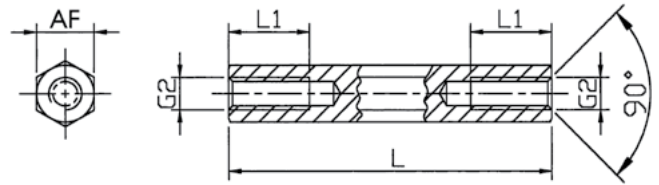
Part number example - HP2MFM4-50-7



Aluminium

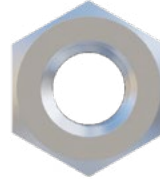
Product Overview

- Material acc. to EN AW 2011: AlCuBiPb
- Minimum tensile strength: 310 N/mm²
- Material number: 3.1655
- Tolerance for length dimensions +/- 0.1 mm
- (DIN 2768-m applies to AF13)



Other materials available:

- Brass
- Steel
- Stainless steel
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HSAFF

Internal Thread Lengths (mm)					
L1	G2				
Length	M3	M4	M5	M6	M8
5	5	5	-	-	-
8	8	8	8	-	-
10	10	10	10	10	-
12	12	12	12	12	-
15	7	15	15	15	15
18	7	9	9	9	18
20	7	9	10	10	20
25	7	9	10	12	12
from 30	7	9	10	12	14

Preferred Range

Thread x Across Flats (AF)	Standard Lengths (mm)																						
	5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
M3 x 6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
M4 x 7	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M5 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M8 x 13					•		•	•	•	•	•	•	•		•		•		•		•		•



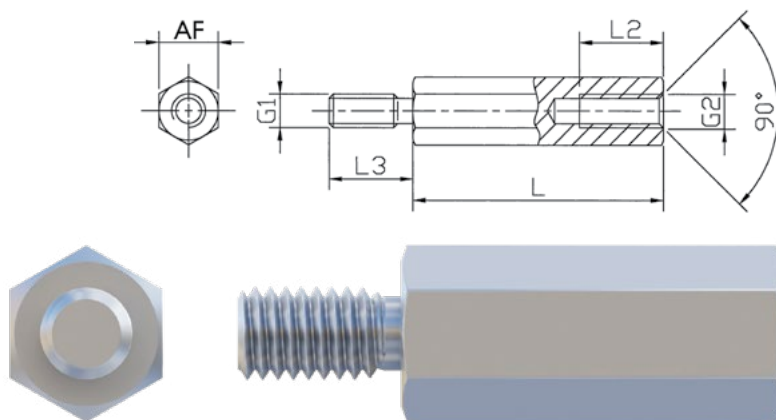
Aluminium

Product Overview

- Material acc. to EN AW 2011: AlCuBiPb
- Minimum tensile strength: 310 N/mm²
- Material number: 3.1655
- Tolerance for length dimensions +/- 0.1 mm
- (DIN 2768-m applies to AF13)

Other materials available:

- Brass
- Steel
- Stainless steel
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/F - Male / Female Thread Pillar - HPAMF

Internal Thread Lengths (mm)					
L2	G2				
Length	M3	M4	M5	M6	M8
5	2.5	-	-	-	-
8	5	5	-	-	-
10	6	6	6	5	-
12	7	8	8	7	-
15	7	9	10	10	10
18	7	9	10	12	12
from 20	7	9	10	12	14

Preferred Range

		Standard Lengths (mm)																							
		5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Thread x Across Flats (AF)	M3 x 6	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•								
	M4 x 7		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M5 x 8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M6 x 10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	M8 x 13					•		•	•	•	•	•	•	•		•		•		•		•		•	



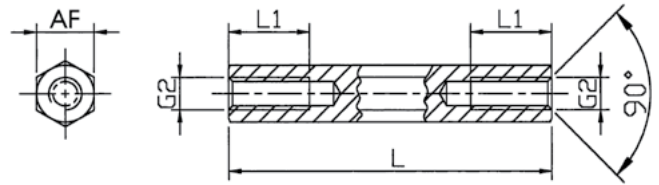
Nylon 6/6 Black

Product Overview

- Temperature resistance: up to approx. 110°
- Contact resistance DIN 53 482: $>10^{12}$ Ohm/cm
- Dielectric strength DIN 54 481: 40 kV/mm
- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HSNFFF

Internal Thread Lengths (mm)		
G2	L	L1
M2/M2.5	to 14	Through Thread
	15–20	Half Length Blind
	from 21	10
M3	to 15	Through Thread
	16–20	Half Length Blind
	from 21	10
M4/M5/M6	to 20	Through Thread
	from 21	10

Preferred Range

		Standard Lengths (mm)																
		4	5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65
Thread x Across Flats (AF)	M2 x 5				•				•		•		•	•				
	M2.5 x 5				•				•		•		•		•	•		
	M3 x 6				•				•		•		•		•		•	•
	M4 x 8				•				•		•		•		•		•	
	M5 x 10				•	•			•		•		•		•		•	•
	M6 x 10				•				•		•		•		•		•	•

Material: Nylon 6/6 Glass Filled Black

Part number example - HSNFFF3-20-6

Our Hexagon Nylon female threaded spacers have a nominal rounded section at the end of the body



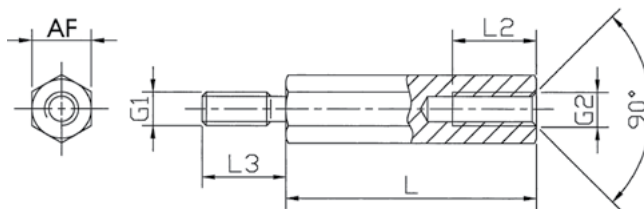
Nylon 6/6 Black

Product Overview

- Temperature resistance: up to approx. 110°
- Contact resistance DIN 53 482: >10¹² Ohm/cm
- Dielectric strength DIN 54 481: 40 kV/mm
- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/F - Male / Female Thread Pillar - HPNMF

Internal Thread Lengths (mm)	
L	L2
5	3.0
from 6	4.0
from 8	6.0
from 10	8.0
from 12	10.0

External Thread Lengths (mm)	
G1	L3
M2.5	8
M3	8
M4	8
M5	8
M6	10

Preferred Range

		Standard Lengths (mm)																	
		4	5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	68
Thread x Across Flats (AF)	M2.5 x 5				•				•		•		•	•					
	M3 x 6				•				•		•		•		•		•		
	M4 x 8				•				•		•		•		•		•		
	M5 x 10				•				•		•		•		•		•	•	
	M6 x 10				•		•		•		•		•		•		•		

Material: Nylon 6/6 Black

Part number example - HPNMF4-10-8

Our Hexagon Nylon female threaded spacers have a nominal rounded section at the end of the body



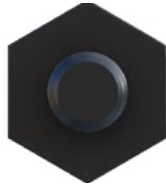
Nylon 6/6 Black

Product Overview

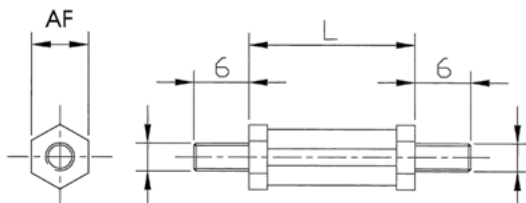
- Temperature resistance: up to approx. 110°
- Contact resistance DIN 53 482: $>10^{12}$ Ohm/cm
- Dielectric strength DIN 54 481: 40 kV/mm
- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

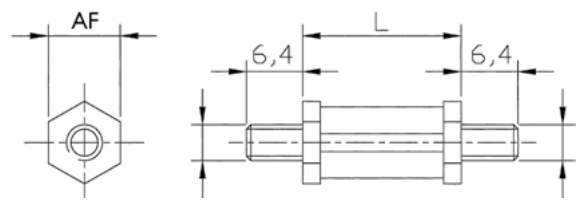
- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



M/M - Male / Male Thread Pillar - HPNMM



Thread	Across Flats (AF) (mm)
M2.5	5
M3	6



Thread	Across Flats (AF) (mm)
M4	8

Preferred Range

		Standard Lengths (mm)																	
		3	4	5	8	10	12	15	18	20	25	30	36	40	45	50	55	60	65
Thread x Across Flats (AF)	M2.5 x 5					•				•		•		•		•		•	
	M3 x 6					•				•		•	•	•		•		•	•
	M4 x 8					•				•		•		•		•		•	•

Material: Nylon 6/6 Black



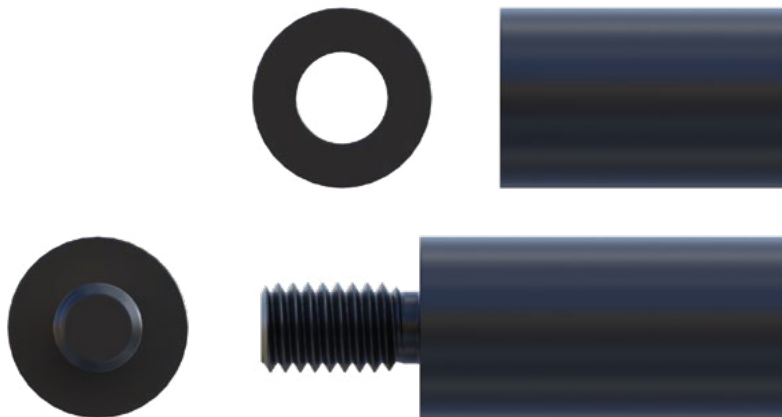
Nylon 6/6 Black - Round

Product Overview

- Temperature resistance: up to approx. 110°
- Contact resistance DIN 53 482: >10¹² Ohm/cm
- Dielectric strength DIN 54 481: 40 kV/mm
- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - RSNFFF

		Standard Lengths (mm)																Thread Lengths (mm)			
		4	5	8	10	12	15	18	20	25	30	35	40	45	50	55	60	65	G2	L	L1
Thread x Diameter	M2 x 4		•	•	•	•	•	•	•	•	•	•	•	•					M2/ M2.5	to 14	Through Thread
	M2.5 x 5	•	•	•	•	•	•	•	•	•	•	•	•	•	•			15–20		Half Length Blind	
																		from 21		10	
	M3 x 6		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		M3	to 15	Through Thread
																	16–20	Half Length Blind			
																		from 21	10		
M4 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	M4/M5/ M6	to 20	Through Thread	
																	from 21		10		

Material: Nylon 6/6 Glass Filled, Black

M/F - Male / Female Thread Pillar - RPNMF

Internal Thread Lengths (mm)		External Thread Lengths (mm)	
L	L2	G1	L3
5	3.0	M2.5	8
from 6	4.0	M3	8
from 8	6.0	M4	8
from 10	8.0	M5	8
from 12	10.0	M6	10

		Standard Lengths (mm)															
		4	5	8	10	12	15	18	20	25	30	35	40	45	50	55	60
Thread x Diameter	M3 x 6		•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	M4 x 8		•	•	•	•	•	•	•	•	•	•	•	•	•	•	

Material: Nylon 6/6 Black

Part number example - RSNFFF3-60-6

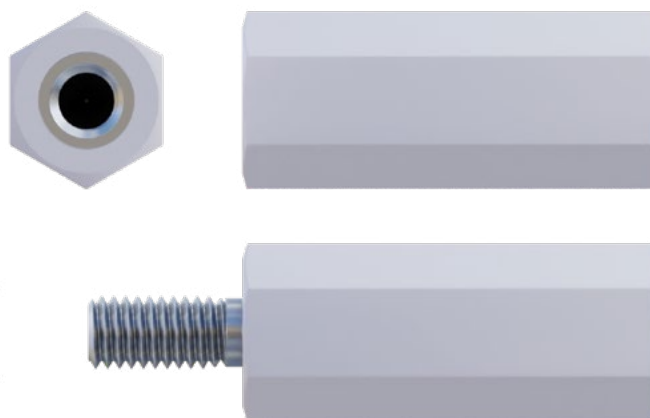
Nylon 6/6 White, Brass Nickel Plated Thread

Product Overview

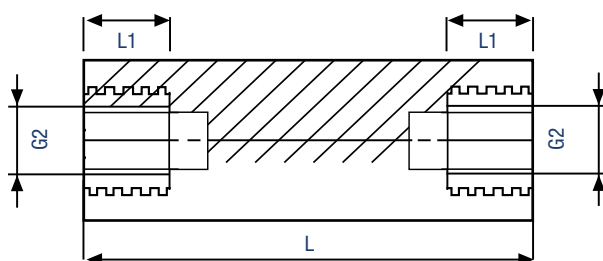
- Body material: Nylon 6/6 white
- Thread inserts: Nickel-plated brass
- Temperature resistance: up to 110°C
- Fire class: UL 94-V2
- Contact resistance: 1012 Ohm/cm
- Dielectric strength: 50kV/mm
- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- Natural Nylon - Brass thread



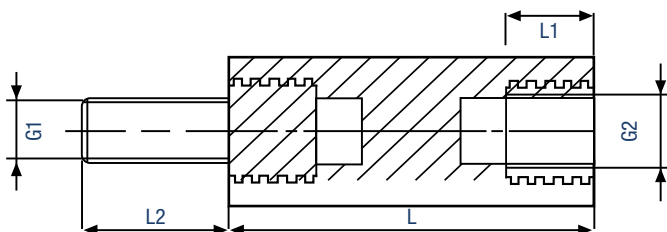
F/F - Female / Female Thread Spacer - HSNBFF



Internal Thread Lengths (mm)				
G2	M2.5	M3	M4	M5
L1	6			

Lengths (mm)	18	20	25	30	35	40	45	50	55	60	65	70
Thread x Across Flats (AF)	M2.5 x 6		•	•	•	•	•	•	•	•	•	
	M3 x 6	•	•	•	•	•	•	•	•	•	•	
	M4 x 8		•	•	•	•	•	•	•	•	•	
	M5 x 10		•	•	•	•	•	•	•	•	•	•

M/F - Male / Female Thread Pillar - HPNBMF



Thread Lengths (mm)				
G1/G2	M2.5	M3	M4	M5
L1 (G2)	6			
L2 (G1)	6		8	10

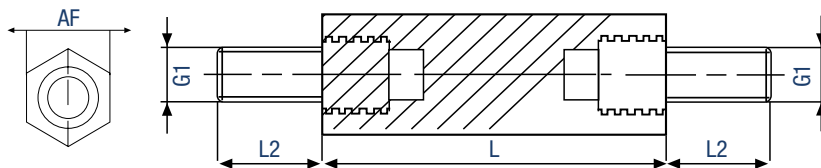
Lengths (mm)	16	20	22	25	30	35	40	45	50	55	58	60	65	70
Thread x Across Flats (AF)	M2.5 x 6			•	•	•	•	•	•	•		•	•	
	M3 x 6		•		•	•	•	•	•	•		•	•	
	M4 x 8		•		•	•	•	•	•	•		•	•	
	M5 x 10	•	•		•	•	•	•	•	•	•	•	•	•



Nylon 6/6 White, Brass Nickel Plated Thread

Product Overview

- Body material: Nylon 6/6 white
- Thread inserts: Nickel-plated brass
- Temperature resistance: up to 110°C
- Fire class: UL 94-V2
- Contact resistance: 1012 Ohm/cm
- Dielectric strength: 50kV/mm
- Tolerance for length dimensions: +/- 0.1 mm



Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- Natural Nylon - Brass thread



F/F - Female / Female Thread Spacer - HSNBFF

External Thread Lengths (mm)				
G1	M2.5	M3	M4	M5
L2	6		8	10

Preferred Range

Lengths (mm)	17	20	25	30	35	40	45	50	55	60	65	70
Thread x Across Flats (AF)	M2.5 x 6	•	•	•	•	•	•	•	•	•	•	
	M3 x 6		•	•	•	•	•	•	•			
	M4 x 8	•	•	•	•	•	•	•	•	•	•	
	M5 x 10		•	•	•	•	•	•	•	•	•	•

Strength/Resistance Values

Torque (Nm)		
AF 6	M2.5	1.3
AF 6	M3	1.3
AF 8	M4	3.0
AF 10	M5	4.5

Pull-Out Torque (N)		
AF 6	M2.5	300
AF 6	M3	300
AF 8	M4	600
AF 10	M5	800



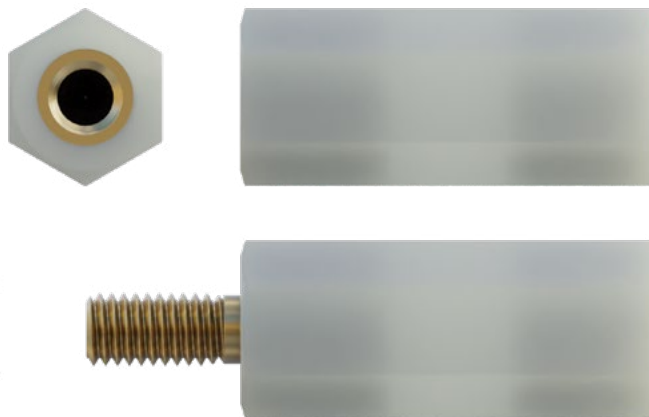
Nylon 6/6 Natural, Brass Nickel Plated Thread

Product Overview

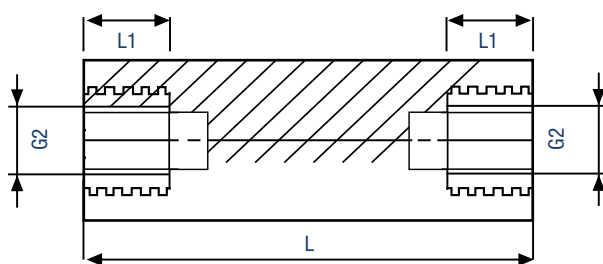
- Body material: Nylon 6/6 natural
- Thread inserts: Brass Self Finish
- Temperature resistance: up to 110°C
- Fire class: UL 94-V2
- Contact resistance: 1012 Ohm/cm
- Dielectric strength: 50kV/mm
- Tolerance for length dimensions: +/- 0.2 mm

Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread



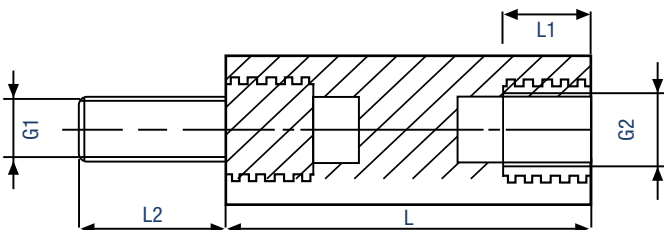
F/F - Female / Female Thread Spacer - HSNBFF



Internal Thread Lengths (mm)		
G2	M6	M8
L1	11	

Lengths (mm)	18	20	25	30	35	40	45	50	55	60	65	70
Thread x Across Flats (AF)	M6 x 13		•	•		•		•				
	M8 x 15			•	•			•		•		

M/F - Male / Female Thread Pillar - HPNBMF



Thread Lengths (mm)		
G1/G2	M6	M8
L1 (G2)	11	
L2 (G1)	12	14

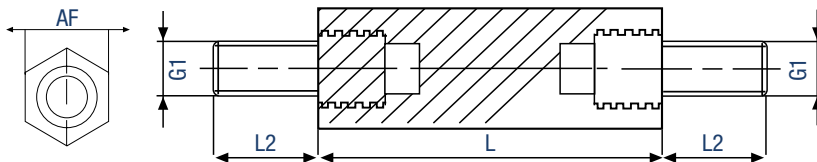
Lengths (mm)	20	25	27	30	35	40	45	50	55	60	65	70
Thread x Across Flats (AF)	M6 x 13	•		•		•		•		•		
	M8 x 15		•	•	•			•		•		



Nylon 6/6 Natural, Brass Nickel Plated Thread

Product Overview

- Body material: Nylon 6/6 natural
- Thread inserts: Brass Self Finish
- Temperature resistance: up to 110°C
- Fire class: UL 94-V2
- Contact resistance: 1012 Ohm/cm
- Dielectric strength: 50kV/mm
- Tolerance for length dimensions: +/- 0.2 mm



Other materials available:

- Brass
- Steel
- Stainless steel
- Aluminium
- Black Nylon - Hexagon/round
- White Nylon - Brass thread



M/M - Male / Male Thread Pillar - HPNBMM

External Thread Lengths (mm)		
G1	M6	M8
L2	12	14

Preferred Range

Lengths (mm)	17	20	25	30	35	40	45	50	55	60	65	70
Thread x Across Flats (AF)	M6 x 13		•	•		•		•		•		
	M8 x 15		•	•		•		•		•		

Strength/Resistance Values

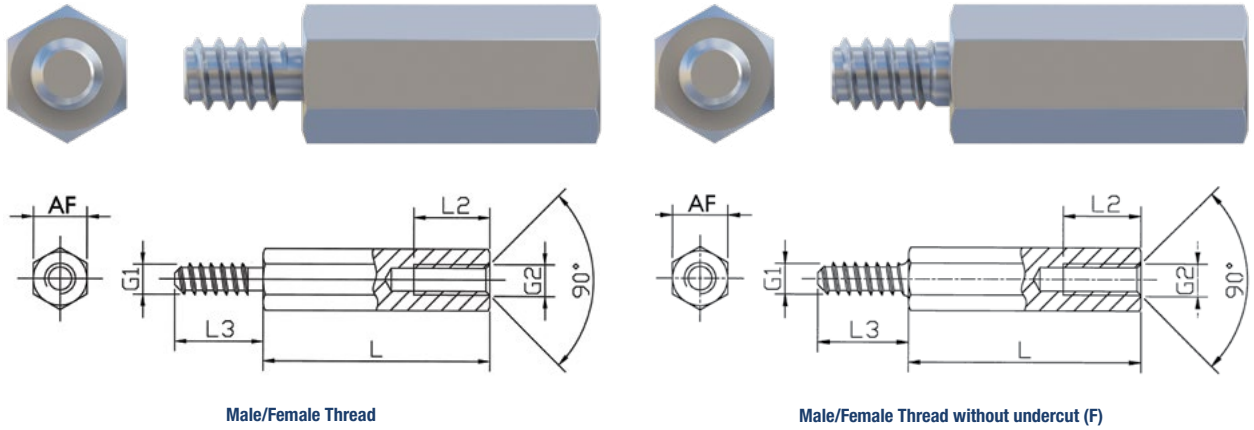
Torque (Nm)			Pull-Out Torque (N)		
AF 13	M6	12.0	AF 13	M6	1000
AF 15	M8	18.0	AF 15	M8	1600



Brass Nickel Plated, Self Tapping Thread

Product Overview

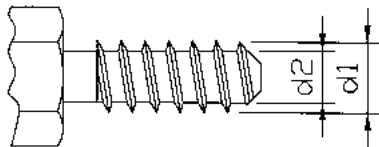
- Tolerance for length dimensions: +/- 0.1 mm
- Other materials available: Steel



M/F - Male / Female Thread Pillar - HPNBMF

Internal Thread G2 (mm)	
L	L2
8	5
10	6
12	7
15	10
20	10

External Thread G1 (mm)			
Thread Size	L3	d1	d2
ST2.2	5	2.1	1.6
ST2.9	6	2.8	2.1
ST3.3	6	3.2	2.3
ST3.5	7	3.4	2.6
ST4.2	8	4.1	3.0
ST4.8	8	4.7	3.5
ST6.3	10	6.1	4.8



Preferred Range

Thread G2 x Across Flats (AF)	Thread G1	Standard Lengths (mm)				
		8	10	12	15	20
M2.5 x 5	ST2.2	•	•	•	•	•
M3 x 5.5	ST2.9	•	•	•	•	•
M3 x 5.5	ST3.3	•	•	•	•	•
M3 x 6	ST3.5	•	•	•	•	•
M4 x 7	ST4.2	•	•	•	•	•
M5 x 8	ST4.8	•	•	•	•	•
M6 x 10	ST6.3		•	•	•	•

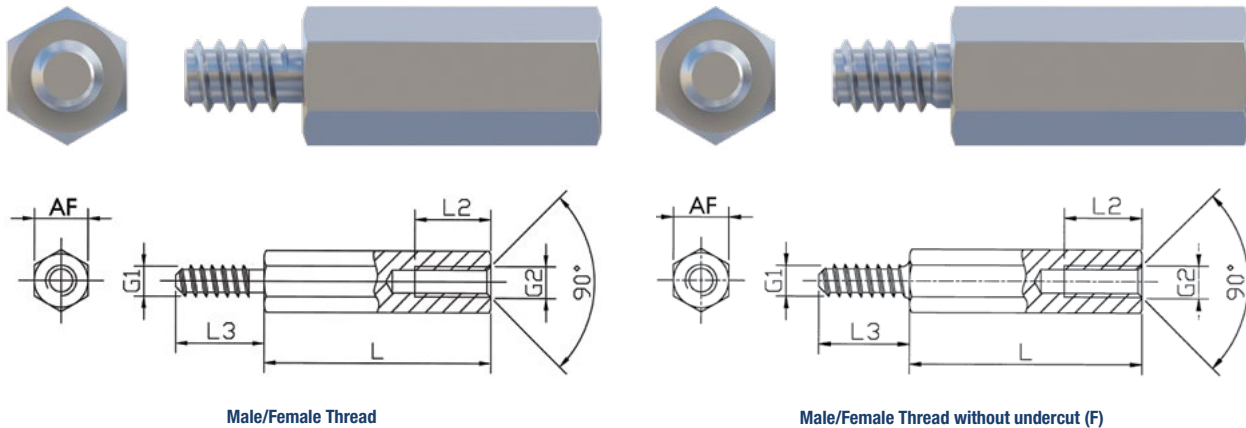
Part number example with undercut - HPBMF2.2-08-5
 Part number example without undercut - HPBMF2.2-0.8F-5



Steel Zinc Plated, Self Tapping Thread

Product Overview

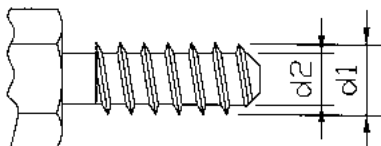
- Tolerance for length dimensions: +/- 0.1 mm
- Other materials available:** Brass



M/F - Male / Female Thread Pillar - HPSMF

Internal Thread G2 (mm)	
L	L2
8	5
10	6
12	7
15	10
20	10

External Thread G1 (mm)			
Thread Size	L3	d1	d2
ST2.2	5	2.1	1.6
ST2.9	6	2.8	2.1
ST3.3	6	3.2	2.3
ST3.5	7	3.4	2.6
ST4.2	8	4.1	3.0
ST4.8	8	4.7	3.5
ST6.3	10	6.1	4.8



Preferred Range

Thread G2 x Across Flats (AF)	Thread G1	Standard Lengths (mm)				
		8	10	12	15	20
M2.5 x 5	ST2.2	•	•	•	•	•
M3 x 5.5	ST2.9	•	•	•	•	•
M3 x 5.5	ST3.3	•	•	•	•	•
M3 x 6	ST3.5	•	•	•	•	•
M4 x 7	ST4.2	•	•	•	•	•
M5 x 8	ST4.8	•	•	•	•	•
M6 x 10	ST6.3		•	•	•	•

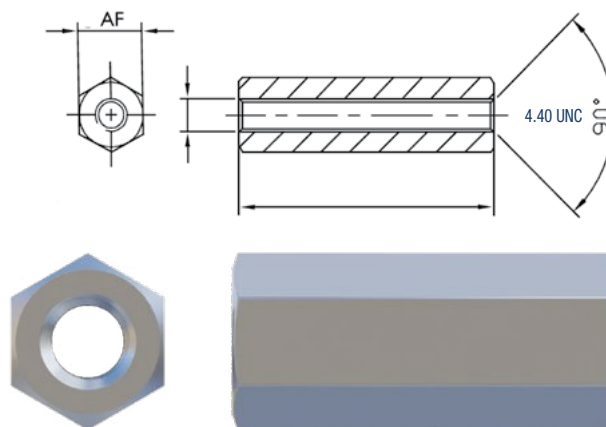
Part number example with undercut - HPSMF2.2-08-5
 Part number example without undercut - HPSMF2.2-0.8F-5



Brass Nickel Plated, UNC Thread

Product Overview

- All UNC types are also available in steel, different lengths and with UNC 6-32, UNC 8-32 and UNC 2-56 thread
- Tolerance for length dimensions: +/- 0.1 mm
- All products are also available without undercut



F/F - Female / Female Thread Spacer - HSBFF

Preferred Range

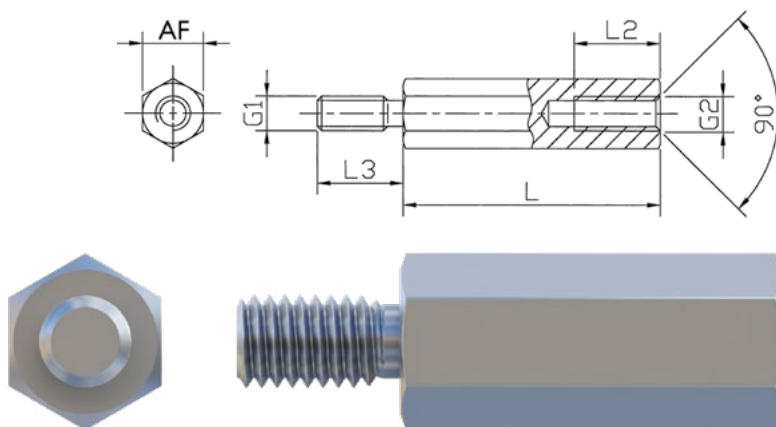
		Standard Lengths (mm)					
		5	6	8	10	12	15
Thread x Across Flats (AF)	4-40 UNC x 5	•	•	•	•	•	•



Brass Nickel Plated, UNC Thread

Product Overview

- All UNC types are also available in steel, different lengths and with UNC 6-32, UNC 8-32 and UNC 2-56 thread
- Tolerance for length dimensions: +/- 0.1 mm
- All products are also available without undercut



M/F - Male / Female Thread Pillar - HPBMF

Thread Lengths (mm)		
L	L2	L3
5	3	4, 5, 6, 8, 10, 12
6	4	6, 8

Preferred Range

G1	G2	Standard Lengths (mm)					
Internal Thread x Across Flats (AF)	External Thread	5	6	8	10	12	15
4-40 UNC x 5	4-40 UNC	•	•				
4-40 UNC x 5	M3	•	•				
M3 x 5	4-40 UNC	•	•				



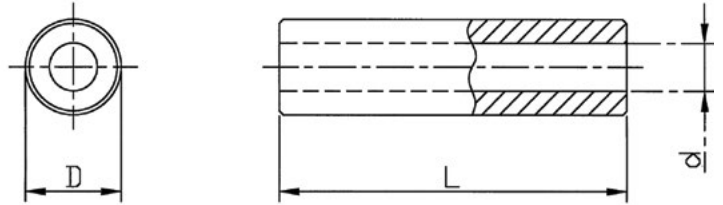
Thru Hole Spacers - Nylon 6/6 Black

Product Overview

- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Brass
- Aluminium
- A2
- Steel



RTSN - Nylon 6/6

Technical Data			
Material	Specific Contact Resistance	Dielectric Strength	Heat Resistance
Nylon 6/6 Black	> 10 ¹² Ohm/cm	80 kV/mm	110°C

Preferred Range

Diameter d (mm)	Diameter D (mm)	Standard Lengths (mm)																		
		4	5	6	7	8	9	10	20	30	32	40	45	50	55	57	60	63		
1.5	4	•	•	•	•	•	•	•												
2.2	4								•	•	•		•		•					
2.7	5								•	•	•		•		•	•				
3.4	6								•	•	•	•	•		•				•	
4.2	8								•	•	•		•	•	•				•	
5.2	10								•	•	•		•		•			•		
6.2	10								•	•	•		•		•	•				
8.2	12								•	•	•		•		•				•	•
10.5	16								•	•	•		•		•					



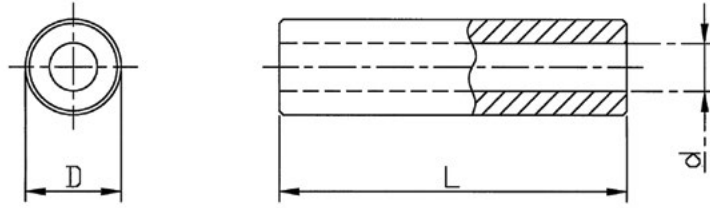
Thru Hole Spacers - Brass Nickel Plated/Aluminium/A2/Steel

Product Overview

- Tolerance for length dimensions: +/- 0.1 mm

Other materials available:

- Nylon 6/6, Black



RTSB - Brass | RTSA - Aluminium | RTS2 - A2 | RTSS - Steel

Preferred Range

Diameter d (mm)	Diameter D (mm)	Standard Lengths (mm)														
		2	3	4	5	6	7	8	9	10	12	15	18	20	25	30
2.1	4.0	•	•	•	•	•	•	•	•	•	•					
2.6	5.0	•	•	•	•	•	•	•	•	•	•	•				
3.2	6.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4.3	8.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5.3	10.0	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Part number example - RTSB3.2-30-6



TR Product Range

PCB Hardware and Cable Management



Range: Support post series, circuit board support, plastic rivets, plastic screws, cable ties & accessories, cable management, adhesive base.

Materials: Black nylon 6/6, white nylon 6/6, nylon 6/6 V2, nylon 6/6 VO, nylon 6 UL94V/2, nylon 46.

TR Branded Products



Our own range of fastener solutions for specific industries and applications, including:

Fasteners for sheet metal, fasteners for plastic, security fasteners, thread-locking nuts, micro-diameter fasteners from M0.6 and enclosure hardware products.

Standard Fasteners



We stock and supply a vast range of standard fasteners to DIN, ISO & ANSI standards including:

Machine screws, self-tapping screws, thread forming screws, socket products, nuts and washers.

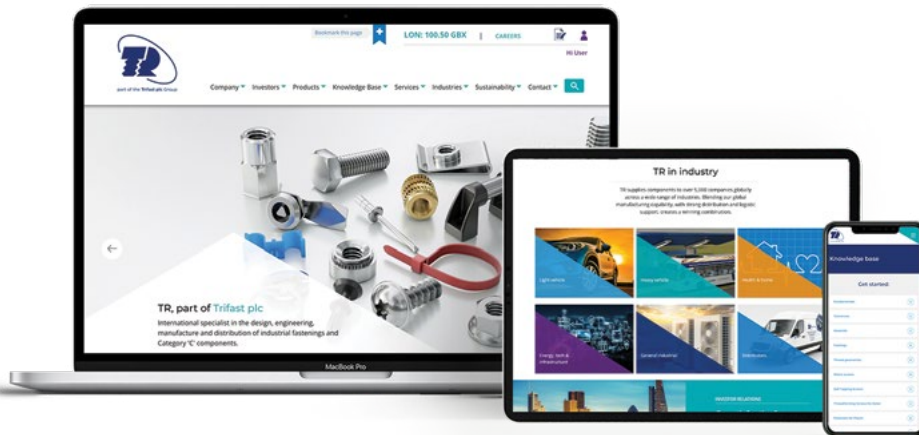
Other Components



For customers we supply via a Vendor Managed Inventory system such as Direct Line Feed, we can include non-fastener products as part of the supply agreement. We can supply practically any high-volume, low-cost components including:

Cables, clips, plastic parts, connectors, switches, springs, batteries, hinges, levers, handles, brackets, hooks, pins, keys, spacers and stays plus much more.

TR Global Website



More features, more products and more data

www.trfastenings.com is designed to be the ultimate go-to resource for engineers, designers and buyers, with improved navigation and functionality throughout.

TR Fastenings supplies components to over 5,000 companies globally across a wide range of industries, including automotive, electronics, domestic appliances and telecoms.

The TR website features an online catalogue of over 50,000 products for use in all sectors, from TR's own branded range of fasteners including self-clinch fasteners and rivet bushes, self-locking nuts, inserts and screws for plastic, blind rivets and rivet nuts, plastic hardware and enclosure hardware to screws, nuts, washers and specially manufactured parts.

Combining a modern design with a powerful search tool it has never been easier to find the product required. Users can simply search for the product or product range required using any number of search terms and choose from a range of items available and related technical information. Once the product and size needed has been selected, users can view, send or download a dynamically generated 2D drawing for the part that includes all related dimensional data, download the related 3D model in a number of formats and save the part to the enquiry basket.

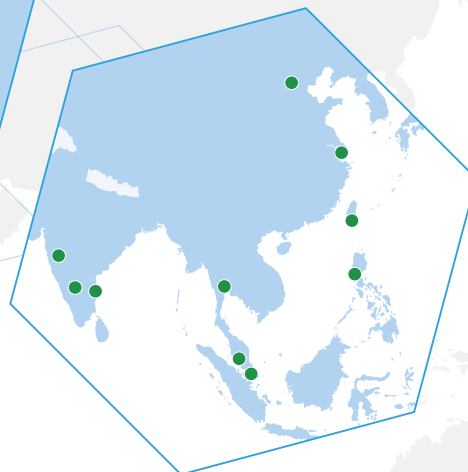
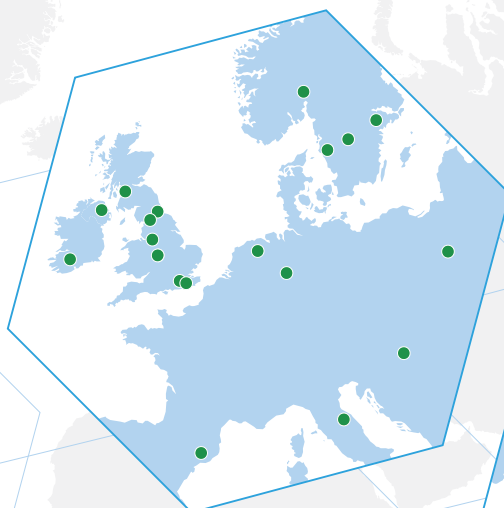
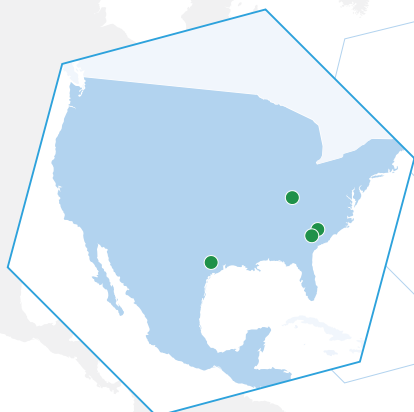
In addition, the website carries an extensive Engineering Knowledge Base, which includes:

- A comprehensive range of 2D/3D fastener models available to download
- Step-by-step animated installation guides
- Tooling requirements and related technical information
- Detailed performance data
- Material and finish specifications
- Fastener standards and comparison tables
- Key industries and the services we supply

TR Fastenings is a full service provider and the TR website also features sections on the key industries it supplies and the services and technical support available to its customers, from engineering and design through to specification, manufacturing, quality and logistics.

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