

BLACK & ZINC PLATED MERCHANT STEEL FITTINGS

MATERIAL SPECIFICATIONS:

- ASTM A108 Carbon Steel
- ASME B633.07 Zinc Plating

DIMENSIONAL SPECIFICATIONS:

- ASME B16.14 Threaded Plugs, Bushings & Locknuts
- SAE J531 Taper Thread Pipe Plugs

THREAD SPECIFICATIONS:

- ASME B1.20.3 - Dryseal Pipe Threads
- *threads are Dryseal Taper Threads(NPTF)

Material List		
Name	Percent of Composition	
	1010 (For Plugs)	12L14 (For others)
Carbon (C)	0.08-0.13	≤0.15
Manganese (Mn)	0.30-0.60	0.85-1.15
Phosphorus (P)	≤0.040	0.04-0.09
Sulfur (S)	≤0.050	0.26-0.35
Lead	...	0.15-0.35



NPT (ASME B1.20.1) and NPTF (ASME B1.20.3) Pipe Thread Connections

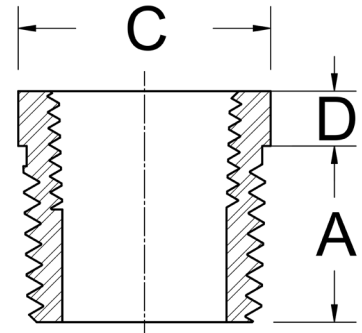
NPTF and NPT threads can be threaded together, however the thread crests (major diameter) and thread roots (minor diameter) differ slightly in diameter as well as allowed tolerances. While NPTF thread crests have the same shape and major diameter as NPT, their tolerance range is narrower and more carefully controlled. NPTF minor diameters are slightly smaller than NPT, making their thread roots truncated or shallower than NPT threads.

While NPT and NPTF thread forms are almost identical, NPT threads are general-purpose threads that require a thread sealant for a leakproof seal, whereas NPTF to NPTF joints create a strong, leakproof mechanical seal without using a sealant. When mixing threaded pipe fittings with dry-seal NPTF threads with NPT threaded fittings the use of a thread sealants is required for leakproof connections.

NPT fittings can be reused but require careful inspection to ensure there is no thread damage from overtightening. Never reuse NPTF fittings for flammable and combustible gases or liquids service or systems carrying hazardous and aggressive gases or liquids. While it is not recommended to reuse NPTF fitting, if an NPTF fitting is reused in a non-hazardous application careful inspection for thread distortion and proper thread engagement is critical, and the use of a thread sealant for a leakproof seal may be required.

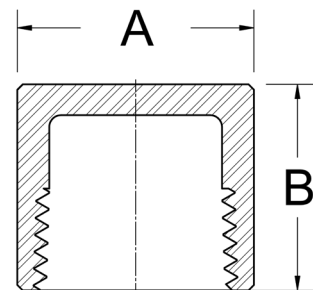
MERCHANT STEEL FITTINGS

Merchant Hex Bushing - MPTF x FPTF



Black	Zinc Plated	Size	A		D		C	
			Inches	mm	Inches	mm	Inches	mm
BLMB-0201	GMB-0201	1/4" x 1/8"	0.48	12.2	0.15	3.8	5/8	15.9
BLMB-0301	GMB-0301	3/8" x 1/8"	0.50	12.7	0.16	4.1	11/16	17.5
BLMB-0302	GMB-0302	3/8" x 1/4"	0.50	12.7	0.16	4.1	11/16	17.5
BLMB-0501	GMB-0501	1/2" x 1/8"	0.61	15.5	0.19	4.8	7/8	22.2
BLMB-0502	GMB-0502	1/2" x 1/4"	0.61	15.5	0.19	4.8	7/8	22.2
BLMB-0503	GMB-0503	1/2" x 3/8"	0.61	15.5	0.19	4.8	7/8	22.2
BLMB-0701	GMB-0701	3/4" x 1/8"	0.72	18.3	0.22	5.6	1 1/16	27.0
BLMB-0702	GMB-0702	3/4" x 1/4"	0.72	18.3	0.22	5.6	1 1/16	27.0
BLMB-0703	GMB-0703	3/4" x 3/8"	0.72	18.3	0.22	5.6	1 1/16	27.0
BLMB-0705	GMB-0705	3/4" x 1/2"	0.72	18.3	0.22	5.6	1 1/16	27.0

Merchant Hex Cap - FPTF



Black	Zinc Plated	Size	A		B	
			Inches	mm	Inches	mm
BLMHCA-01	GMHCA-01	1/8"	9/16	14.3	0.53	13.5
BLMHCA-02	GMHCA-02	1/4"	11/16	17.5	0.63	16.0
BLMHCA-03	GMHCA-03	3/8"	13/16	20.6	0.74	18.8
BLMHCA-05	GMHCA-05	1/2"	1.000	25.4	0.87	22.1
BLMHCA-07	GMHCA-07	3/4"	1 3/16	30.2	0.97	24.6

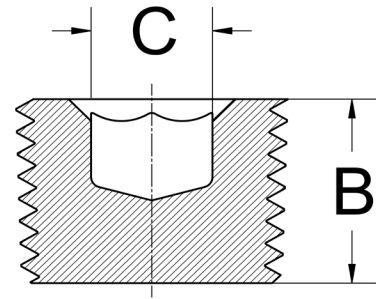


25 Whaley Avenue, PO Box 310, Milverton, ON CANADA N0K 1M0
Tel: 800-561-3164

boshart.com ♦ blog.boshart.com

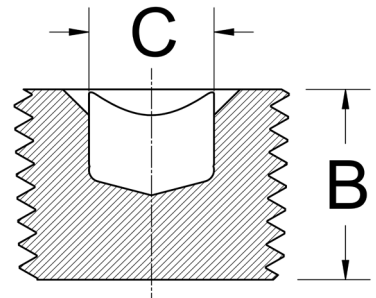
MERCHANT STEEL FITTINGS

Merchant Countersunk Hex Socket Plug - MPTF



Black	Zinc Plated	Size	B		C	
			Inches	mm	Inches	mm
BLMPCHS-01	GMPCHS-01	1/8"	0.290	7.4	0.1875	4.8
BLMPCHS-02	GMPCHS-02	1/4"	0.445	11.3	0.2500	6.4
BLMPCHS-03	GMPCHS-03	3/8"	0.445	11.3	0.3125	7.9
BLMPCHS-05	GMPCHS-05	1/2"	0.590	15.0	0.3750	9.5
BLMPCHS-07	GMPCHS-07	3/4"	0.600	15.2	0.5625	14.3
BLMPCHS-10	GMPCHS-10	1"	0.750	19.1	0.6250	15.9
BLMPCHS-12	GMPCHS-12	1-1/4"	0.80	20.3	0.75	19.1
BLMPCHS-15	GMPCHS-15	1-1/2"	0.83	21.1	1.00	25.4
BLMPCHS-20	GMPCHS-20	2"	0.88	22.4	1.00	25.4

Merchant Countersunk Square Socket Plug - MPTF



Black	Zinc Plated	Size	B		C	
			Inches	mm	Inches	mm
BLMPCSS-01	GMPCCS-01	1/8"	0.290	7.4	0.1920	4.9
BLMPCSS-02	GMPCCS-02	1/4"	0.445	11.3	0.2550	6.5
BLMPCSS-03	GMPCCS-03	3/8"	0.445	11.3	0.3190	8.1
BLMPCSS-05	GMPCCS-05	1/2"	0.590	15.0	0.3820	9.7
BLMPCSS-07	GMPCCS-07	3/4"	0.600	15.2	0.5080	12.9
BLMPCSS-10	GMPCCS-10	1"	0.750	19.1	0.5080	12.9
BLMPCSS-12	GMPCCS-12	1-1/4"	0.800	20.3	0.7500	19.1
BLMPCSS-15	GMPCCS-15	1-1/2"	0.830	21.1	0.7500	19.1
BLMPCSS-20	GMPCCS-20	2"	0.880	22.4	0.8750	22.2

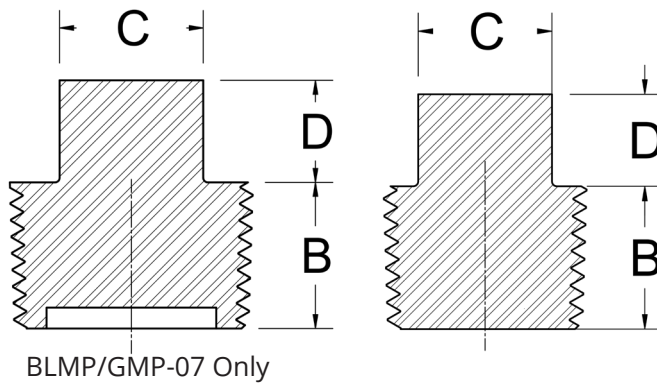
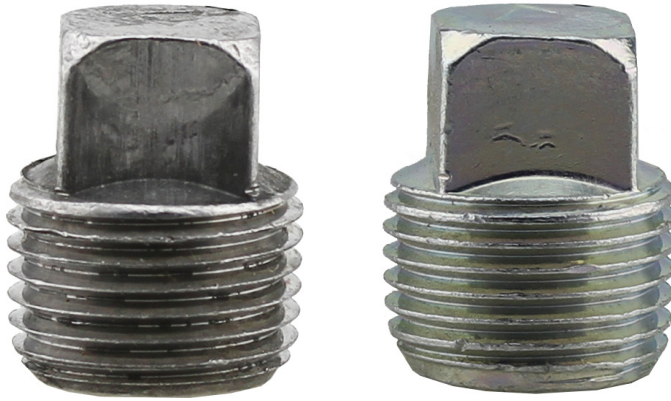


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MERCHANT STEEL FITTINGS

Merchant Square Head Plug - MPTF



Black	Zinc Plated	Size	B		C		D	
			Inches	mm	Inches	mm	Inches	mm
BLMP-01	GMP-01	1/8"	0.330	8.38	0.276	7.0	0.24	6.1
BLMP-02	GMP-02	1/4"	0.445	11.3	0.37	9.4	0.28	7.1
BLMP-03	GMP-03	3/8"	0.495	12.6	0.428	10.9	0.31	7.9
BLMP-05	GMP-05	1/2"	0.590	15.0	0.553	14.0	0.38	9.7
BLMP-07	GMP-07	3/4"	0.630	16.0	0.62	15.7	0.44	11.2