



॥ श्री गणेशाय नमः ॥

MICRO METAL INDIA

Specialist in: FORGE & BUTT-WELD FITTINGS

Suppliers of : FERROUS & NON-FERROUS METALS & All Types of Industrial Raw materials, Stainless Steel, Carbon Steel, Copper, Brass, Aluminium, SuperAlloy Steel, 304, 304L, 316, 316L, 309, 310, 410, 421 Sheet, Plate, Rod, Flanges, Pipe & Pipe Fittings etc.

1st Floor, Room No 7., Bldg No. 185 Parvati Bhawan Dr. Mitrans Mahimtura Marg Durgadevi Udyan, 3rd Kumbharwada Mumbai - 400 004.

Mo: 9892792294 • Email - micrometalindia21@gmail.com

MATERIAL TEST CERTIFICATE

(In Accordance with EN 20204 - TYPE 3.1)

TC NO. MMI / 175-2022-23

DATE - 09/09/2022

CLIENT NAME : FABEX ENGINEERS PVT.LTD.

P.O NO. PE-PC/22-23/9256

DATE - 29/08/2022

Item Details as follows :-

TYPE :-

PROCESS OF MANUFACTURING

Hot Forged.

SR NO.	Material Specification	Item Description	Size	Qty Nos	Lot No.
1	ASME SECT II PART A (2019 EDITION) ASTM A 193GR. B7 BOLT / STUD : B7	MS HEX BOLT	M12 X 40 L	580	MMI12
2		MS HEX BOLT	M12 X 45 L	25	MMI12
3		MS HEX BOLT	M12 X 50 L	350	MMI12
4		MS HEX BOLT	M12 X 55 L	60	MMI12
5		MS HEX BOLT	M16 X 60 L	100	MMI16
6		MS HEX BOLT	M16 X 65 L	188	MMI16
7		MS HEX BOLT	M16 X 70 L	72	MMI16
8		MS HEX BOLT	M12 X 75 L	4	MMI12
9		MS HEX BOLT	M16 X 120 L	8	MMI16
10		MS HEX BOLT	M20 X 75 L	50	MMI20
11		MS HEX BOLT	M20 X 80 L	8	MMI20
12		MS HEX BOLT	M20 X 140 L	25	MMI20
13		MS HEX BOLT	M24 X 100 L	12	MMI24

CHEMICAL ANALYSIS RESULT (%)

Lot No.	C%	S%	P%	Si%	Mn%	MO%	Cr%				
	0.37 - 0.49	0.040 MAX	0.035 MAX	0.15-0.35	0.65-1.10	0.15-0.25	0.75-1.20				
MMI12	0.40	0.015	0.019	0.32	0.79	0.18	0.85				
MMI12	0.38	0.025	0.021	0.25	0.80	0.20	0.91				
MMI12	0.41	0.026	0.029	0.28	0.71	0.19	0.95				
MMI12	0.45	0.028	0.025	0.31	0.75	0.21	0.85				
MMI16	0.48	0.018	0.020	0.18	0.95	0.16	0.85				
MMI16	0.45	0.020	0.022	0.21	0.94	0.16	0.88				
MMI16	0.41	0.022	0.025	0.22	0.79	0.19	0.79				
MMI12	0.40	0.019	0.028	0.34	0.77	0.23	0.89				
MMI16	0.38	0.019	0.029	0.32	0.88	0.21	0.85				
MMI20	0.39	0.021	0.019	0.31	0.89	0.21	0.95				
MMI20	0.40	0.021	0.250	0.18	0.84	0.19	0.99				
MMI20	0.46	0.021	0.028	0.20	0.99	0.16	0.91				
MMI24	0.48	0.030	0.029	0.21	0.91	0.18	0.92				

MACHINICAL TEST RESULT :-

Heat / Lot No.	0.2% / YS (Mpa)	UTS (Mpa)	Elongation in Area %	Reduction in Area %	HRC	IMPACT TEST (N.A)	
						Specimen Size :-	
						OBS. VALUE IN (J)	AV. (J)
MMI12	868	967.00	27%	57%	25,28,32		
MMI12	895	996.00	27%	59%	26,29,32		
MMI12	880	967.00	27%	61%	24,22,34		
MMI12	883	975.00	27%	61%	25,25,32		
MMI16	868	986.00	26%	61%	25,28,34		
MMI16	883	985.00	26%	60%	30,25,25		
MMI16	880	968.00	26%	59%	25,27,32		
MMI12	895	968.00	24%	61%	25,28,30		
MMI16	895	984.00	26%	61%	25,22,21		
MMI20	868	997.00	24%	61%	26,28,33		
MMI20	868	997.00	24%	57%	22,29,32		
MMI20	868	997.00	24%	57%	22,26,32		
MMI24	880	995.00	27%	57%	20,22,33		

MARKETING DETAILS :-

RAW MATERIAL DETAILS :- ASTM A 193GR. B7

EDGE PREPARATION STANDARD :-

VISUAL EXAMINATION :- FOUND SATISFACTORY

DIMENSION STANDARD :- AS PER ASME

HEAT TREATMENT DETAILS :-

REMARK :-

LPT Test :- FOUND SATISFACTORY (100%)

PMI Test :- 100% OK





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Mo:9892792294 • Email -micrometalindia21@gmail.com

MATERIAL TEST CERTIFICATE

(In Accordance with EN 10204 : TYPE 3.1)

TC NO. MMI /176-2022-23

DATE :- 09/09/2022

CLINT NAME : FABEX ENGINEERS PVT.LTD.

P.O NO. FE-PO/22-23/0256

DATE :- 29/08/2022

Item Details as follow :-

TYPE :-

PROCESS OF MANUFACTURING

Hot Forged.

SR NO.	Material Specification	Item Description	Size	Qty Nos	Lot No.
1	ASME SECT.II PART A (2019	MS HEX NUT	M12	920	MMI12
2	EDITION)	MS HEX NUT	M16	365	MMI16
3	ASTM A194 Gr. 2H	MS HEX NUT	M20	80	MMI20
4	NUT IDENTIFICATION : 2H	MS HEX NUT	M24	12	MMI24

CHEMICAL ANALYSIS RESULT (%) :-

Lot No.	C%	S%	P%	SI%	Mn%						
	0.40 MIN	0.050 MAX	0.040 MAX	0.40 MAX	1.00 MAX						
MMI12	0.52	0.025	0.029	0.23	0.79						
MMI16	0.57	0.027	0.025	0.25	0.80						
MMI20	0.47	0.023	0.031	0.28	0.71						
MMI24	0.52	0.028	0.028	0.31	0.75						

MACHANICAL TEST RESULT :-

Heat / Lot No.	Load (LBF)	Hardness Test HRB (60 min)	HRC Max 24 To 35	IMPACT TEST (N.A)	
				Specimen Size :-	
				OBS.VALUE IN (J)	AVJ.(J)
MMI12	190	96,92,95	24,24,30		
MMI16	182	91,95,94	27,30,28		
MMI20	190	94,99,93	29,27,26		
MMI24	190	92,95,97	28,30,26		

MARKETING DETAILS :-

RAW MATERIAL DETAILS :- ASTM A194 Gr. 2H

EDGE PREPARATION STDANDERD :-

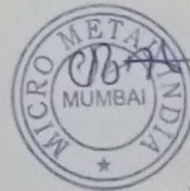
VISUAL EXAMINATION :- FOUND SATISFACTORY

DIMENSION STANDARD :- AS PER ASME

HEAT TREATMENT DETAILS :-

REMARK :- LPT Test :- FOUND SATISFACTORY (100%)

PMI Test :- 100% OK





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TYPE :-

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Hot Forged.

SR NO.	Material Specification	Item Description	Size	Qty Nos	Lot No.
1	ASME SECT.II PART A (2019 EDITION) ASTM A 193GR. B7 Allen Bolt : B7	MS Allen BOLT	M10 X 25 L	65	MMI10
2		MS Allen BOLT	M12 X 25 L	35	MMI12

CHEMICAL ANALYSIS RESULT (%) :-

Lot No.	C%	S%	P%	SI%	Mn%	MO%	Cr%				
	0.37 - 0.49	0.040 MAX	0.035 MAX	0.15-0.35	0.65-1.10	0.15-0.25	0.75- 1.20				
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MARKETING DETAILS :-

RAW MATERIAL DETAILS :- ASTM A 193GR. B7

EDGE PREPARATION STDANDERD :-

VISUAL EXAMINATION :- FOUND SATISFACTORY

DIMENSION STANDARD :- AS PER ASME

HEAT TREATMENT DETAILS :-

REMARK :- LPT Test :- FOUND SATISFACTORY (100%)

PMI Test :- 100% OK

