



**GEM-YEAR TESTING LABORATORY  
CERTIFICATE OF INSPECTION**

MANUFACTURER: GEM-YEAR INDUSTRIAL CO., LTD.  
 ADDRESS: NO.8GEM-YEAR  
 ROAD,E.D.Z.JIASHAN,ZHEJIANG,P.R.CHINA  
 PURCHASER: MAPTCO FASTENERS (AUST) PTY LTD  
 PO. NUMBER: MAP-2022M  
 COMMODITY: HOT FORM ISO 4016 HEX BOLT CL 4.6  
 SIZE: M20-2.50X350 T/L:150MM  
 LOT NO: 1B2060311(1A20716561)  
 SHIP QUANTITY: 577 PCS  
 HEADMARKS: GENIUS SYMBOL & 4.6  
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)  
 FAX: (0573) 84184488 84184567  
 DATE: 2020/08/24  
 PACKING NO: GEM200804003  
 INVOICE NO: GEM/MAP-200824MEL  
 PART NO: M669  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: 196D4681  
 MATERIAL: ML08  
 FINISH: HOT DIP GALVANIZED PER ASTM  
 A153/ASTM F2329

**PERCENTAGE COMPOSITION OF CHEMESTRY: TEST FACILITY :S**

Chemistry	A1%	C%	Mn%	P%	S%	Si%
Spec.:MIN.	0.0200	0.0500	0.2000			
MAX.		0.1200	0.5000	0.0350	0.0350	0.1000
Test Value	0.0430	0.0600	0.3600	0.0140	0.0090	0.0200

**DIMENSIONAL INSPECTIONS: ACCORDING TO ISO 4016 TEST FACILITY : M**

SAMPLED BY: YUQIAN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
MAJOR DIAMETER	3 PCS	JB/T 9151		19.6700-20.0000 MM	19.8300-19.8600 MM	3	0
NOMINAL LENGTH	11 PCS	JB/T 9151		344.3000-355.7000 MM	348.9600-349.7300 MM	11	0
WIDTH ACROSS CORNERS	3 PCS	JB/T 9151		Min. 32.9500 MM	33.9700-34.1200 MM	3	0
BODY DIAMETER	3 PCS	JB/T 9151		19.1600-20.8400 MM	19.8200-19.8400 MM	3	0
WIDTH ACROSS FLATS	3 PCS	JB/T 9151		29.1600-30.0000 MM	29.7600-29.8800 MM	3	0
HEIGHT	3 PCS	JB/T 9151		11.6000-13.4000 MM	12.6400-12.8900 MM	3	0
THREAD LENGTH	11 PCS	JB/T 9151	150		157.2300-158.1600 MM	11	0
SURFACE DISCONTINUITIES	15 PCS	ISO6157.3			PASSED	15	0
THREAD	11 PCS	JB/T 9151		nut	PASSED	11	0

**MECHANICAL PROPERTIES: ACCORDING TO ISO 898.1-2013 TEST FACILITY : M**

SAMPLED BY: TANGHAO

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
ELONGATION	3 PCS	ISO898.1		Min. 22 %	28.9-30.7 %	3	0
TENSILE STRENGTH	3 PCS	ISO898.1		Min. 400 N/MM2	484-492 N/MM2	3	0
CORE HARDNESS	11 PCS	ISO898.1		67-95 HRB	86.7-88.9 HRB	11	0

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME. SPECIFICATION. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY.

THE REPORT IS ISSUED ACCORDING TO ISO16228 F3.1(EN10204 3.1)

TYPE M: MANUFACTURER

TYPE S: SUPPLIER(STEEL MILL,PLATING SUB SUPPLIER,HEAT TREATMENT SUB SUPPLIER ETC.)

WE CERTIFY THE PARTS ARE ROHS COMPLIANT.

SIGNATURE: