

**MATERIAL CERTIFICATES WITH MECHANICAL PROPERTIES AND CHEMICAL COMPOSITION
ACCORDING TO EN 10204 /3.1B PLUS BASE MATERIAL CERTIFICATES**

PO#: ZPO-2112-0033

CUSTOMER: UNIMECH ENGINEERING (M) SDN BHD

DATE:2022-03-06

QUANTITY	DESCRIPTION OF GOODS		MATERIAL	RESULT							
854	Hex bushing	3/4" X 1/2"	2022030601	304	OK						
296		1" X 1/2"									
301		1" X 3/4"									
235		1-1/2" X 1-1/4"									
236	2" X 1"	2022030602									
228	Round cap 2"										
249	Cross 1-1/2"										
1130	90Elbow	3/4"	2022030603								
176		1-1/4"									
251		1-1/2"									
482	Hose nipple	1/2"	2022030604								
231		1.1/4"									
1000	Hex nipple	1/4"	2022030605								
1200		3/8"									
3114		1"									
936		1.1/2"									
1065	2"	2022030606									
337	1" X 3/4"										
250	1-1/4" X 1"										
204	2-1/2" X 2"	2022030607									
230	1/4"										
407	1-1/2"										
380	2"										
200	Red hex socket	1/2" X 1/4"	2022030608								
363		1/2" X 3/8"									
400		1" X 1/2"									
245		1" X 3/4"									
193		2" X 1"									
1371	Tee	1/2"	2022030609								
466		3/4"									
419		1"									
452		1-1/2"									
204	2"	2022030609									
198	1" X 1/2"										
218	2" X 1/2"										
233	2" X 1"	2022030609									
244	1-1/4"										
1138	1-1/2"										
CHEMICAL COMPOSITION									MECHANICAL PROPERTIES		
HEAT NO.	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION
	MAX	MAX	MAX	MAX	MAX				MPa	Mpa	>30%
	0.08	1.00	2.00	0.045	0.030	8.0/11.0	18.00/20.00		>485	>205	
2022030601	0.040	0.53	1.08	0.032	0.014	8.03	18.14		OK	OK	OK
2022030602	0.062	0.660	1.020	0.030	0.011	8.16	18.06		OK	OK	OK
2022030603	0.040	0.53	1.07	0.037	0.015	8.03	18.17		OK	OK	OK
2022030604	0.041	0.55	1.08	0.032	0.014	8.06	18.15		OK	OK	OK
2022030605	0.036	0.37	1.04	0.030	0.015	8.11	18.10		OK	OK	OK
2022030606	0.037	0.55	1.03	0.037	0.013	8.07	18.09		OK	OK	OK
2022030607	0.040	0.53	1.07	0.037	0.015	8.03	18.17		OK	OK	OK
2022030608	0.041	0.55	1.08	0.032	0.014	8.06	18.15		OK	OK	OK
2022030609	0.036	0.37	1.04	0.030	0.015	8.11	18.10		OK	OK	OK



WE HEREBY CERTIFY THAT:1. THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIED WITH TERMS OF THE ORDER CONTRACT.

**MATERIAL CERTIFICATES WITH MECHANICAL PROPERTIES AND CHEMICAL COMPOSITION
ACCORDING TO EN 10204 /3.1B PLUS BASE MATERIAL CERTIFICATES**

PO#: ZPO-2111-0021

CUSTOMER: UNIMECH ENGINEERING (M) SDN BHD

DATE:2021-12-18

QUANTITY	DESCRIPTION OF GOODS		MATERIAL		RESULT							
1000	Hex bushing	3/8*1/4	2021121801	304	OK							
575		3/4*3/8										
216		1-1/2*1										
224		2*1										
139		2-1/2*1										
1000	Round cap	3/8	2021121802									
108		2										
500		1/2										
200	1											
557	Hose nipple	1/2				2021121803						
617		3/4										
500	Hex nipple	3/8	2021121804									
549		1-1/2										
578		3										
1000	Red hex nipple	3/8*1/4				2021121805						
500		1/2*3/8										
545		3/4*1/4										
558		3/4*1/2										
260		1-1/4*1/2										
1477	Square plug	1/2	2021121806									
1132		1										
128		1-1/2										
558	Red hex socket	3/4*1/2				2021121807						
115		3*1-1/2										
500	Street elbow	1/2	2021121806									
500	Tee	1/4										
1000		3/8										
1010		1										
500	Red tee	1/2*1/4		2021121807								
512		3/4*1/2										
1000	Union with teflon	3/8	2021121807									
537		1/2										
513		1										
CHEMICAL COMPOSITION									MECHANICAL PROPERTIES			
HEAT NO.	C%	Si%		Mn%	P%	S%	Ni%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION
	MAX	MAX	MAX	MAX	MAX				MPa	Mpa	>30%	
	0.08	1.00	2.00	0.045	0.030	8.0/11.0	18.00/20.00		>485	>205		
2021121801	0.040	0.53	1.08	0.032	0.014	8.03	18.14		OK	OK	OK	
2021121802	0.062	0.660	1.020	0.030	0.011	8.16	18.06		OK	OK	OK	
2021121803	0.040	0.53	1.07	0.037	0.015	8.03	18.17		OK	OK	OK	
2021121804	0.041	0.55	1.08	0.032	0.014	8.06	18.15		OK	OK	OK	
2021121805	0.036	0.37	1.04	0.030	0.015	8.11	18.10		OK	OK	OK	
2021121806	0.037	0.55	1.03	0.037	0.013	8.07	18.09		OK	OK	OK	
2021121807	0.037	0.55	1.03	0.037	0.013	8.07	18.09		OK	OK	OK	



WE HEREBY CERTIFY THAT:1. THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIED WITH TERMS OF THE ORDER CONTRACT.

**MATERIAL CERTIFICATES WITH MECHANICAL PROPERTIES AND CHEMICAL COMPOSITION
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PO#: ZPO-2111-0021

CUSTOMER: UNIMECH ENGINEERING (M) SDN BHD

DATE:2021-12-18

QUANTITY	DESCRIPTION OF GOODS				MATERIAL				RESULT		
630	Hex bushing	1/2*3/8		202112201	316				OK		
314		1*1/2									
683	90Elbow	1/2		2021122202							
1120		1									
1046	Hex nipple	3/8		2021122203							
582		1									
614	Red hex nipple	3/8*1/4		2021122204							
HEAT NO.	CHEMICAL COMPOSITION										
	C%	Si%	Mn%	P%	S%	NI%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION
	MAX	MAX	MAX	MAX	MAX				MPa	Mpa	>30%
	0.08	1.50	1.50	0.040	0.040	9.0/12.0	18.00/21.00	2.00/3.00	>485	>205	
2021122201	0.064	0.75	0.95	0.040	0.025	9.12	18.11	2.15	OK	OK	OK
2021122202	0.068	0.77	0.94	0.037	0.023	9.13	18.10	2.11	OK	OK	OK
2021122203	0.064	0.75	0.95	0.040	0.025	9.12	18.11	2.15	OK	OK	OK
2021122204	0.068	0.77	0.94	0.037	0.023	9.13	18.10	2.11	OK	OK	OK



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PO#: ZPO-2112-0033 CUSTOMER: UNIMECH ENGINEERING (M) SDN BHD

DATE:2022-03-06

QUANTITY	DESCRIPTION OF GOODS	MATERIAL	RESULT	CHEMICAL COMPOSITION										MECHANICAL PROPERTIES						
				C%	Si%	Mn%	P%	S%	NI%	Cr%	Mo%	TENSILE STRENGTH	YIELD POINT	ELONGATION						
387	90Elbow	1/2"																		
372	Hose nipple	1"																		
439	Square plug	3/8"																		
360		1/2"																		
332	Red socket	1*1/2"																		
291	Red Tee	3/4"																		
321		1"																		
CHEMICAL COMPOSITION																				
HEAT NO.	C% MAX	Si% MAX	Mn% MAX	P% MAX	S% MAX	NI% MAX	Cr% MAX	Mo% MAX	TENSILE STRENGTH MPa	YIELD POINT Mpa	ELONGATION %									
2022030801	0.08	1.50	1.50	0.040	0.040	9.0/12.0	18.00/21.00	2.00/3.00	>485	>205	>30%									
	0.064	0.75	0.95	0.040	0.025	9.12	18.11	2.15	OK	OK	OK									
2022030802	0.068	0.77	0.94	0.037	0.023	9.13	18.10	2.11	OK	OK	OK									



WE HEREBY CERTIFY THAT:1. THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIED WITH TERMS OF THE ORDER CONTRACT.



INSPECTION CERTIFICATE

CERTIFICATE NO : R22- 126
DATE ISSUED : 21/03/ 2022

ARITA VALVE MFG (M) SDN BHD
Lot 414, Lorong Perusahaan 8C,
Prai Industrial Estate,
13600 Prai, Penang, Malaysia.
Tel: 04 - 3973388 / 3973399
Fax: 04 - 3905469

CUSTOMER : UNIMECH ENGINEERING (M) SDN BHD
DELIVERY ORDER NO: DO-1611-0064

No	Job No.	Article & Size	Quantity	Specification for Inspection																																																																																																																																																																
1	-	1/2" SUS 316 HEX. NIPPLE, BSPT	600 Pcs	Specification for Material ASTM A-351 GR CF8M Surface & Appearance Inspection GOOD GOOD																																																																																																																																																																
<table border="1"> <thead> <tr> <th rowspan="2">Specification</th> <th colspan="10">Chemical Composition %</th> <th rowspan="2">HARDNESS (HB)</th> <th colspan="2">Tension Test</th> <th rowspan="2">Elongation %</th> </tr> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Ni</th> <th>Cr</th> <th>Mo</th> <th>Yield Strength Mpa</th> <th>Tensile Strength Mpa</th> </tr> </thead> <tbody> <tr> <td>Min</td> <td>0.08</td> <td>2.00</td> <td>1.50</td> <td>0.04</td> <td>0.04</td> <td>8.00</td> <td>18.00</td> <td>1.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max</td> <td>0.0336</td> <td>0.4750</td> <td>0.8120</td> <td>0.0310</td> <td>0.0005</td> <td>11.00</td> <td>21.00</td> <td>3.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Heat No</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>8.0100</td> <td>18.4200</td> <td>2.2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Specification	Chemical Composition %										HARDNESS (HB)	Tension Test		Elongation %	C	Si	Mn	P	S	Ni	Cr	Mo	Yield Strength Mpa	Tensile Strength Mpa	Min	0.08	2.00	1.50	0.04	0.04	8.00	18.00	1.00							Max	0.0336	0.4750	0.8120	0.0310	0.0005	11.00	21.00	3.00							Heat No						8.0100	18.4200	2.2							1																																																																																									
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WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE CONTRACT.

INSPECTOR :

MANAGER / DIRECTOR :



AUTHORISED SIGNATURE