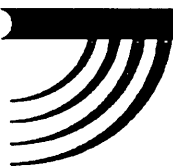


QuarterTurn

RESOURCES INC.



P.O. Box 1455
Ponca City, OK 74602
Office: (580) 765-0183
Fax: (580) 765-0182

QTR WO: Q29940-5
F-580-026, R7

CERTIFICATE OF CONFORMANCE

Customer: ARS Global PO#: 4

Description: 3" 600# WE (XH) Fig 54 Delta Ball Valve, L/O

Quantity: 15 S/N(s): R17226-0016-0003, 0004, 0006, 0007,
0009, 0010, 0011, 0012, 0015, 0017,
0018, 0019, 0022, 0024, 0025

THE EQUIPMENT LISTED ABOVE CONFORMS TO THE FOLLOWING:

API-6D (X) NACE MR-0175; (X) Fire-Safe per (X)
Part 1 & 2 API 6FA

We certify that the material listed above has been manufactured and tested in accordance with API 6D, Valvitalia standards, and customer purchase order requirements. Material listed has successfully passed all mandatory test and meets supplemental requirements as noted above.

Michael Carson
Quality Assurance Manager

Date: 3/4/22

Body: R17226-0016-0003, 0004, 0006, 0007, 0009, 0010, 0011, 0012, 0015, 0017, 0018, 0019, 0022, 0024, 0025



IMS S.p.A.
acciai speciali

IMS S.p.A. - Sede: via Alessandro Polini, 450 - 20862 Arcore (MB) - www.ims.it
C.F. 00485910012 - Reg. Imp. Monza e Brianza - P.I. IT 02387540962 - REA: MB 264817
Cap. Soc. € 40.700.000,00 i.v. - Direzione e coordinamento: JACQUET METAL SERVICE S.A.

VALVITALIA SPA
PIAZZA SIGMUND FREUD 1
20154 MILANO (MI)

Test set

Cert Number 846513-8
Test Reference 1854444

02/10/2017

Archive Copy

Issued from
IMS S.p.A.
Filiale di Arcore
Via Alessandro Polini, 450
20862 Arcore (MI)

Sold To: VALVITALIA SPA, PIAZZA SIGMUND FREUD 1, 20154 MILANO (MI)
Ship To: MLB DI MAGGIORE E C. SNC, VIA LOMBARDA 10, 21015 LONATE POZZOLO (VA)

Customer 1008334/25 Your Order P170003948 (06/06/2017)
Our Order 884071-31-1 Packing List 846513-1 (02/10/2017)

Product Information

Round bar ASTM A350LF2 Normalized
230mm x 107mm Fixed length it da 71 a 77
54CP0310000D4AAR0G

Heat
434756

Pcs
170

KGS
6.035

Chemical Composition

C.E.: 0,3967

D.I.: 0

C	Mn	Si	P	S	Cr	Ni	Mo
0,173	1	0,25	0,012	0,003	0,15	0,12	0,03
Cu	Al	Sn	Ti	V	Nb	Ca	Co
0,18	0,027	0,011	0,0024	0,005	0,001	0,0009	0,01
Pb	B						
0,0001	0,0001						

Physical Tests

Rm (N/mm ²) (L)	Re (N/mm ²) (L)	A (%) (L)	Z (%) (L)
487 N/ Sq mm	323 N/ Sq mm	34,6 %	68 %
HB			
145-160			

Heat Treatment

Heat Trmt	Temp	Time	Cool Mthd

Impact Tests

Impc	UM	Temp	D	Rslt 1	Rslt 2	Rslt 3
KCV	J	-50 C	L	76,0	98,0	90,0

Microinclusion

ASTM E45

A		B		C		D	
F	G	F	G	F	G	F	G
1,0	1,0	2,0	1,0	0,0	0,0	1,0	1,0

Controllo antimescolanza/Antimix control: 100%
Controllo superficiale/Surface control: 100%
Grano austenitico/Austenitic grain: 8
Controllo ultrasuoni/Ultrasonic test: EN 10308 class 3
Rapporto di riduzione/Reduction ratio: 7
Norma di riferimento/Reference standard: ASTM A350/A105
NACE MR 0175; ASME SA350
Tipo di certificato del produttore / Type of Mill certificate: EN 10204 - 3.1

Archive Copy

We declare that the above described product complies with the order requirements.
This IMS certificate is a true copy of the producer's original one kept in our archives.
Branch quality control: Daniele Rampinelli



02/10/2017 10.48 1

58211

Closures

Closures: R17226-0016-0003, 0004, 0006, 0007, 0009, 0010, 0011, 0012, 0015, 0017, 0018, 0019, 0022, 0024, 0025

Test set



IMS S.p.A.
acciai speciali

IMS S.p.A. - Sede: via Alessandro Polini, 450 - 20862 Arcore (MB) - www.ims.it
C.F. 00485910012 - Reg. Imp. Monza e Brianza - P.I. IT 02387540962 - REA: MB 264817
Cap. Soc. € 40.700.000,00 i.v. - Direzione e coordinamento: JACQUET METAL SERVICE S.A.

Cert Number 846513-6
Test Reference 1857232

02/10/2017

VALVITALIA SPA
PIAZZA SIGMUND FREUD 1
20154 MILANO (MI)

Archive Copy

Send from
IMS S.p.A.
Filiale di Arcore
Via Alessandro Polini, 450
20862 Arcore (MB)

Sold To: VALVITALIA SPA, PIAZZA SIGMUND FREUD 1, 20154 MILANO (MI)
Ship To: MLB DI MAGGIORE E C. SNC, VIA LOMBARDA 10, 21015 LONATE POZZOLO (VA)

Customer 1008334/25 **Your Order** P170003948 (06/06/2017)
Our Order 884071-17-1 **Packing List** 846513-1 (02/10/2017)

Product Information

Round bar ASTM A350LF2 Normalized
200mm x 147mm Fixed length it 24,25
AUCW036U000D6AAR0G

Heat
434930

Pcs
100

KGS
3.672

Chemical Composition

C.E.: 0.4088

D.I.: 0

C	Mn	Si	P	S	Cr	Ni	Mo
0,182	1,03	0,25	0,015	0,002	0,17	0,09	0,02
Cu	Al	Sn	Ti	V	Nb	B	
0,15	0,022	0,009	0,0033	0,0058	0,002	0,0001	

Physical Tests

Rm (N/mm ²) (L)	Re (N/mm ²) (L)	A (%) (L)	Z (%) (L)
508 N/ Sq mm	344 N/ Sq mm	33,6 %	73 %
HB			
152,0 - 174,0			

Heat Treatment

Heat Trmt	Temp	Time	Cool Mthd	Impc	UM	Temp	D	Rslt 1	Rslt 2	Rslt 3
				KCV	J	-50 C	L	85,0	84,0	77,0

Impact Tests**Microinclusion
ASTM E45**

A		B		C		D	
F	G	F	G	F	G	F	G
1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0

Controllo antimescolanza/Antimix control: 100%
Controllo superficiale/Surface control: 100%
Grano austenitico/Austenitic grain: 7
Controllo ultrasuoni/Ultrasonic test: EN 10308 class 3
Rapporto di riduzione/Reduction ratio: 4.0 : 1
Norma di riferimento/Reference standard: ASTM A350/A105
NACE MR 0175; ASTM SA350
Tipo di certificato del produttore / Type of Mill certificate: EN 10204 - 3.1

Archive Copy

We declare that the above described product complies with the order requirements.
This IMS certificate is a true copy of the producer's original one kept in our archives.
Branch quality control: Daniele Rampinelli



02/10/2017 10.45 1

58206

Stem

Stem: R17226-0016-0003, 0004, 0006, 0007, 0009, 0010, 0011, 0012, 0015,
0017, 0018, 0019, 0022, 0024, 0025


IMS S.p.A.

acciai speciali

IMS S.p.A. - Sede: via Alessandro Polini, 450 - 20862 Arcore (MB) - www.ims.it
C.F. 00485910012 - Reg. Imp. Monza e Brianza - P.I. IT 02387540962 - REA: MB 264817
Cap. Soc. € 40.700.000,00 i.v. - Direzione e coordinamento: JACQUET METAL SERVICE S.A.

Test set

Cert Number 1197249
Test Reference 1886631

16/10/2017

VALVITALIA SPA
PIAZZA SIGMUND FREUD 1
20154 MILANO (MI)

Issued from
IMS SpA
Filiale di Arcore
Via Alessandro Polini, 450
20862 Arcore (MB)

Sold To: VALVITALIA SPA, PIAZZA SIGMUND FREUD 1, 20154 MILANO (MI)
Ship To: LUSE OFF. MECC. DI CAVANNA SERGIO, VIA EMILIA INT. 61/F, 27050 REDAVALLE (PV)

Customer 1008334/14 **Your Order** P170003948 (06/06/2017)
Our Order 884071-47-1 **Packing List** 846541-1 (02/10/2017)

Product Information

Round bar 42CrMo4 Hardened and tempered (A.4140)
55mm x 155mm Fixed length it da 191 a 197

Heat
242334

Lot
VALVITALIA

Pcs
170

KGS
502

Shipped Heats 242334

Chemical Composition

C	Mn	Si	P	S	Cr	Ni	Mo
0,418	0,84	0,19	0,013	0,025	1,17	0,12	0,18
Cu	Al	Sn	Ti	V	Nb	Ca	B
0,24	0,018	0,013	0,0073	0,007	0,005	0,0007	0,0001
As	N	O	H				
0,005	90ppm	14ppm	1ppm				

Physical Tests

Rm (N/mm ²) (L)	Re (N/mm ²) (L)	A (%) (L)	Z (%) (L)
1.022 N/ Sq mm	862 N/ Sq mm	15 %	58 %

Jominy/Hardness Rockwell C

1,5mm	3,0mm	5,0mm	7,0mm	9,0mm	11,0mm	13,0mm	15,0mm
60,5	60,2	59,5	59	58,5	57,4	56,4	55,3
20,0mm	25,0mm	30,0mm	35,0mm	40,0mm	45,0mm	50,0mm	
51,9	48,4	45,6	43,8	42	41,6	40,3	

Heat Treatment

Heat Trmt	Temp	Time	Cool Mthd	Impc	UM	Temp	D	Rslt 1	Rslt 2	Rslt 3
				KCV	J	-46 C	L	50,0	52,0	54,0
				KCV	J	20 C	L	70,0	74,0	79,0

Microinclusion**ASTM E45**

A		B		C		D	
F	G	F	G	F	G	F	G
2,0	1,5	1,0	0,0	0,0	0,0	1,0	0,5

Controllo antimescolanza/Antimix control: -100% OK

Controllo superficiale/Surface control: -100% OK

Caratteristiche meccaniche su saggio bonificato/Mechanical properties on quenched and tempered sample.

Grano austenitico/Austenitic grain: 7

Controllo ultrasuoni/Ultrasonic test: 100% OK

R/R=24

Acciaio Degasato

Norma di riferimento/Reference standard: UNI EN 10083-3

Tipo di certificato del produttore / Type of Mill certificate: EN 10204 -3.1

HB dopo Trattamento Termico/HB after TT = 215 HB



17 OCT. 2017

We declare that the above described product complies with the order requirements.
This IMS certificate is a true copy of the producer's original one kept in our archives.
Branch quality control: Daniele Rampinelli

16/10/2017 03.58 1

58339

Top Cover: R17226-0016-0003, 0004, 0006, 0007, 0009, 0010, 0011, 0012, 0015, 0017, 0018, 0019, 0022, 0024, 0025



IMS S.p.A.
acciai speciali

IMS S.p.A. - Sede: via Alessandro Polini, 450 - 20862 Arcore (MB) - www.ims.it
C.F. 00485910012 - Reg. Imp. Monza e Brianza - P.I. IT 02387540962 - REA: MB 264817
Cap. Soc. € 40.700.000,00 i.v. - Direzione e coordinamento: JACQUET METAL SERVICE S.A.

VALVITALIA SPA
PIAZZA SIGMUND FREUD 1
20154 MILANO (MI)

Cert Number 839949-7
Test Reference 1853597

27/07/2017

Issued from
IMS SpA
Filiale di Arcore
Via Alessandro Polini, 450
20862 Arcore (MB)

Sold To: VALVITALIA SPA, PIAZZA SIGMUND FREUD 1, 20154 MILANO (MI)
Ship To: MLB DI MAGGIORE E C. SNC, VIA LOMBARDA 10, 21015 LONATE POZZOLO (VA)

Customer 1008334/25
Our Order 884071-40-1
Your Order
Packing List

Reference
P170003948 (06/06/2017)
839949-1 (27/07/2017)

Product Information

Round bar ASTM A350LF2 Normalized
95mm x 47mm Fixed length it da 101 a 107
54FP0310000D4AAR0G

Heat
235608

Pcs
170

KGS
450

Chemical Composition

C.E.: 0,3945

D.I.: 0

C	Mn	Si	P	S	Cr	Ni	Mo
0,18	0,95	0,26	0,008	0,002	0,13	0,11	0,04
Cu	Al	Sn	Ti	V	Nb	B	
0,21	0,021	0,008	0,0019	0,004	0,002	0,0001	

Physical Tests

Rm (N/mm ²) (L)	Re (N/mm ²) (L)	A (%) (L)	Z (%) (L)
512 N/ Sq mm	330 N/ Sq mm	30,6 %	68 %
HB			
152-162			

Heat Treatment

Heat Trmt	Temp	Time	Cool Mthd

Impact Tests

Impc	UM	Temp	D	Rslt 1	Rslt 2	Rslt 3
KCV	J	-50 C	L	29,0	40,0	41,0

Microinclusion

ASTM E45

A	B	C	D
F	G	F	G
1,0	0,5	0,0	0,0

Controllo antimescolanza/Antimix control: 100%
Controllo superficiale/Surface control: 100%
Grano austenitico/Austenitic grain: 7
Controllo ultrasuoni/Ultrasonic test: EN 10308 class 4
Rapporto di riduzione/Reduction ratio: 8,0
Norma di riferimento/Reference standard: ASTM A350/A105
NACE MR 0175; ASME SA350
Tipo di certificato del produttore / Type of Mill certificate: EN 10204 - 3.1



08 AGO 2017

We declare that the above described product complies with the order requirements.
This IMS certificate is a true copy of the producer's original one kept in our archives.
Branch quality control: Daniele Rampinelli

27/07/2017 02.03 1

57204