

**BULLONERIA VILLA S.p.A.**

CAPITALE SOC. EURO 120.000 INT. VERSATO

**20151 MILANO – VIA GALLARATE, 141**

Ufficio vendite: - Stab.: Tel. (02) 38006529 -fax (02)3084962

Amministrazione: Telefono (02) 38006356 - E-Mail: info@bulloneriavilla.com  
www.bulloneriavilla.com

ISO 9001:2008–Cert.n.3213/2

**INSPECTION CERTIFICATE**  
According to (EN 10204:2005) 3.1

Nr. 110174

Data/Date 18/02/11

Vostro ord./Your order  
Nr. **102153**  
Data/Date **02/12/2010**Ns. Bolla/Delivery note  
Nr. **110312**  
Data/Date **17/02/2011**Cliente/Customer  
**DESMET BALLESTRA S.p.A.**  
**VIA PORTALUPPI,17**  
**20138 MILANO**

1E352

Materiali e valori conformi alle norme ASTM

Materials and values in conformity with standards ASTM

Pos/item.	Materiale/Materials	Descrizione/Description	Misure/sizes	Quantità/Quantity
1)	ASTM A193/B7	TIRANTI/STUD BOLTS	1/2"unc X 75	NR. 67
2)	ASTM A193/B7	TIRANTI/STUD BOLTS	5/8" unc X 100	NR. 9
2)	ASTM A193/B7	TIRANTI/STUD BOLTS	5/8" unc X 110	NR. 76
3)	ASTM A193/B7	TIRANTI/STUD BOLTS	3/4" unc X 115	NR. 17
4)	ASTM A193/B7	TIRANTI/STUD BOLTS	7/8" unc X 140	NR. 12
5)	ASTM A193/B7	VITI T.E./SCREWS	5/8" unc X 40	NR. 17

**TRATT./TREATMENT****ZINC./HOT DIP.GALVANIZED ASTM A153****ANALISI CHIMICA/CHEMICAL ANALYSIS**

Req. Min		%C	%Mn	%Si	%P	%S	%Ni	%Cr	%Mo	%Al
Req. Max		0,370	0,650	0,150				0,750	0,150	
p/i		0,490	1,100	0,350	0,035	0,040		1,200	0,250	
Colata/heat										
1)	AF0689	0,415	0,770	0,210	0,013	0,026		1,010	0,170	
2)	AF0690	0,425	0,780	0,230	0,014	0,026		1,050	0,170	
3)	406148	0,418	0,870	0,249	0,017	0,022		1,050	0,171	
4)	39106	0,380	0,810	0,240	0,017	0,023		1,020	0,190	
5)	30779	0,415	0,740	0,260	0,011	0,022		1,040	0,190	

**CARATTERISTICHE MECCANICHE/MECHANICAL PROPERTIES**

Required	R	R 0.2	A	Z	HB	HB*	Impact test KV	Proof. L=
	Mpa – N/mm2	Mpa – N/mm2	%	%	Min. Max	24 h	-27JMIN-101°C	
Pos/item	860	720	16	50		321		
1)	1017	799	20,5	59,3		295		
2)	996	825	21,8	59,8		299		
3)	992	784	19,4	60,5		298		
4)	978	819	16,3	59,2		295		
5)	968	743	16	51,8		287		

Note: VISUAL DIMENSIONAL TEST = **SATISFACTORY** Heat treat. **Quenched Tempered**BULLONERIA VILLA S.p.A.  
Quality controlMacroetch examination according to ASTM E381-01  
Carried out on ferritic steels bars ASTM A193-A194

We hereby certify that materials described in this certificate have been tested and comply with the terms of the order and of specification. \* = hardness heat treatment at 540/590°C



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Materials and values in conformity with standards ASTM

Pos/item.	Materiale/Materials	Descrizione/Description	Misure/sizes	Quantità/Quantity
1)	ASTM A193/B7	TIRANTI/STUD BOLTS	1/2"unc X 65	NR. 7
1)	ASTM A193/B7	TIRANTI/STUD BOLTS	1/2"unc X 70	NR. 10
1)	ASTM A193/B7	TIRANTI/STUD BOLTS	1/2"unc X 75	NR. 4
2)	ASTM A193/B7	TIRANTI/STUD BOLTS	3/4" unc X 100	NR. 4
2)	ASTM A193/B7	TIRANTI/STUD BOLTS	3/4" unc X 110	NR. 8
3)	ASTM A194/2H	DADI E./HEX.NUTS	1/2" unc	NR. 42
4)	ASTM A194/2H	DADI E./HEX.NUTS	3/4" unc	NR. 24

**ANALISI CHIMICA/CHEMICAL ANALYSIS**

Req. Min		%C	%Mn	%Si	%P	%S	%Ni	%Cr	%Mo	%Al
Req. Max		0,370	0,650	0,150				0,750	0,150	
p/i Colata/heat		0,490	1,100	0,350	0,035	0,040		1,200	0,250	
1)	AF0689	0,415	0,770	0,210	0,013	0,026		1,010	0,170	
2)	406148	0,418	0,870	0,249	0,017	0,022		1,050	0,171	
3)	28687	0,450	0,720	0,230	0,017	0,034				
4)	32110	0,440	0,750	0,240	0,008	0,034				

**CARATTERISTICHE MECCANICHE/MECHANICAL PROPERTIES**

Required	R	R 0.2	A	Z	HB	HB*	Impact test KV	Proof. L=
	Mpa – N/mm <sup>2</sup>	Mpa – N/mm <sup>2</sup>	%	%	Min. Max	24 h	-27JMIN-101°C	
	860	720	16	50		321		
Pos/item								
1)	1017	799	20,5	59,3		295		
2)	992	784	19,4	60,5		298		
3)						277		POSIT
4)						281		POSIT

Note: VISUAL DIMENSIONAL TEST = **SATISFACTORY** Heat treat. **Quenched Tempered**

BULLONERIA VILLA S.p.A.

Quality control

Macroetch examination according to ASTM E381-01

Carried out on ferritic steels bars ASTM A193-A194

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Materiali e valori conformi alle norme ASTM

Materials and values in conformity with standards ASTM

Pos/item.	Materiale/Materials	Descrizione/Description	Misure/sizes	Quantità/Quantity
1)	ASTM A194/2H	DADI E./HEX.NUTS	1/2" unc	NR. 134
2)	ASTM A194/2H	DADI E./HEX.NUTS	5/8" unc	NR. 170
3)	ASTM A194/2H	DADI E./HEX.NUTS	3/4" unc	NR. 34
4)	ASTM A194/2H	DADI E./HEX.NUTS	7/8" unc	NR. 24

**TRATT./TREATMENT****ZINC./HOT DIP.GALVANIZED ASTM A153****ANALISI CHIMICA/CHEMICAL ANALYSIS**

Req. Min Req. Max		%C	%Mn	%Si	%P	%S	%Ni	%Cr	%Mo	%Al
p/i Colata/heat		0,400	1,000	0,400	0,04	0,050				
1)	28687	0,450	0,720	0,230	0,017	0,034				
2)	32111	0,440	0,710	0,200	0,007	0,033				
3)	32110	0,440	0,750	0,240	0,008	0,034				
4)	23053	0,430	0,728	0,212	0,009	0,033				

**CARATTERISTICHE MECCANICHE/MECHANICAL PROPERTIES**

Required Pos/item	R Mpa – N/mm <sup>2</sup>	R 0.2 Mpa – N/mm <sup>2</sup>	A %	Z %	HB Min. Max	HB* 24 h	Impact test KV -27JMIN-101°C	Proof. L=
						321		
1)					306/308	277		POSIT POSIT
2)					268/285	250		
3)						281		
4)						271		

Note: VISUAL DIMENSIONAL TEST = **SATISFACTORY** Heat treat. **Quenched Tempered**BULLONERIA VILLA S.p.A.  
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