



**Inspection Certificate 3.2 acc. to EN 10204
COVERSHEET
FOR PIPES Rev. 1 DMV Cert. #61377**

Wilh. Schulz
Apparate- und Rohrleitungsbau
Edelstahl Press + Stanzwerke
Kuhleshütte 85, 47809 Krefeld
Telefon (02151) 517-0

Customer : Fa. Linster & Co GmbH

Contractor : **Wilh. Schulz GmbH Kuhleshütte 85**
D-47809 Krefeld

Customers Purchase Order :

Purchase Order W.Schulz : **Intern**

Pipe Specification: **seamless pipes acc. to ASTM A 376/ A 376M-06**
and supplementary requirement S9
and Material Data Sheet A376-347 Rev. 1 Dec. 2006

Material Grade : **TP 347**

WS Item	Dimension	Heat No.	Qty. Pcs.	Qty. Mtr.	Manufacturer	CMTR No.
5	3" SCH 160	494910	2	13,26	DMV	61377

No weld repair has been performed.

- The pipes have been stabilized annealed at a temperature of 950°C for 2 Std., cooled on air acc. to ASTM A376/ A376M-06.

The following additional tests were performed after heat treatment with satisfactory results:

- Intergranular Corrosion Test ASTM A262 Pr. E = satisfactory
- Hardness Testing acc. to NACE MR 01-75 = satisfactory
- Ring expanding test: each pipe = satisfactory
- Grain size acc. to ASTM E112 = 7
- 100% Ultrasonic examination acc. to EN 10246-7 (LF) Cl. U2/C = satisfactory
- 100% Ultrasonic examination acc. to EN 10246-6 (QF) Cl. U2/C = satisfactory
- 100% Liquid penetrant examination acc. to EN 10228-2 = satisfactory
- Hydrostatic test 170 bar holding time 60 sec. = satisfactory
- Tensile Testing:

Test Temperature: 20°C		Yield Strength min. Streckgrenze N/mm ²		Tensile Strength min. Zugfestigkeit N/mm ²	Elongation min. Dehnung A %	Impact Energy Kerbschlagzähigkeit J	Hardness Härte HRC
Heat No.	Lot No.	205		515	35		< 22
494910	WSP075377-5	L 294	L 346	L 571	L 51,5		< 20
494910	WSP075377-5	L 292	L 338	L 569	L 50,5		< 20

L=Longitudinal

(T1U)

Marking: Logo-ASTM Designation/ Material Grade/ SML/ HT/ Dimensions

Wilh. Schulz GmbH
Authorized Inspection Representative:

R. Bleyer

Technischer Überwachungsverein Rheinland e.V.
Geschäftsfeld Anlagentechnik
Regionalbereich Mönchengladbach/Krefeld
Der Sachverständige

Date: 31. May 2007

Attachments:
MTRs