

Connection Data Sheet

NSMAX™-GR

Material Grade: 95 ksi

Available Sizes

OD (inch)	Nominal Weight (lbs/ft)
18	94.0
	105.0
	117.0
	119.0
	128.0
18-5/8	87.5
	94.5
	96.5
	101.0
	106.0
	109.4
	112.0
	115.0
	122.0
	136.0
20	94.0
	106.5
	117.0
	133.0
	144.0

Document No.

CDS : NSMAX-GR 18" 94.0# 95KSI

Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	94.0	0.500	NT-95DE	16.812	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

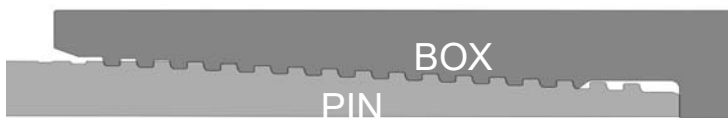
Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.000	inch
Nominal ID :	17.000	inch
Nominal Cross section Area :	27.489	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,611	klb
Compression Yield Strength :	2,611	klb
External (collapse) Pressure :	1,300	psi
Internal Yield Pressure :	4,880	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	18.937	inch
Connection ID (nom) :	17.000	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	27.489	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	25,470	ft.lbs
Opt. Make-up Torque :	28,300	ft.lbs
Max. Make-up Torque :	31,130	ft.lbs
Min. Shouldering Torque :	2,830	ft.lbs
Max. Shouldering Torque :	25,470	ft.lbs

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CDS : NSMAX-GR 18" 105.0# 95KSI
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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	105.0	0.562	NT-95DE	16.688	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.000	inch
Nominal ID :	16.876	inch
Nominal Cross section Area :	30.788	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,925	klb
Compression Yield Strength :	2,925	klb
External (collapse) Pressure :	1,810	psi
Internal Yield Pressure :	5,490	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	18.937	inch
Connection ID (nom) :	16.876	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	30.788	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	28,170	ft.lbs
Opt. Make-up Torque :	31,300	ft.lbs
Max. Make-up Torque :	34,430	ft.lbs
Min. Shouldering Torque :	3,130	ft.lbs
Max. Shouldering Torque :	28,170	ft.lbs

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 CDS : NSMAX-GR 18" 117.0# 95KSI
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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	117.0	0.625	NT-95DE	16.562	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.000	inch
Nominal ID :	16.750	inch
Nominal Cross section Area :	34.116	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,241	klb
Compression Yield Strength :	3,241	klb
External (collapse) Pressure :	2,450	psi
Internal Yield Pressure :	6,100	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.055	inch
Connection ID (nom) :	16.750	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	34.116	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	36,090	ft.lbs
Opt. Make-up Torque :	40,100	ft.lbs
Max. Make-up Torque :	44,110	ft.lbs
Min. Shouldering Torque :	4,010	ft.lbs
Max. Shouldering Torque :	36,090	ft.lbs

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 CDS : NSMAX-GR 18" 119.0# 95KSI
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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	119.0	0.640	NT-95DE	16.532	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.000	inch
Nominal ID :	16.720	inch
Nominal Cross section Area :	34.904	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,316	klb
Compression Yield Strength :	3,316	klb
External (collapse) Pressure :	2,610	psi
Internal Yield Pressure :	6,250	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.055	inch
Connection ID (nom) :	16.720	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	34.904	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	36,900	ft.lbs
Opt. Make-up Torque :	41,000	ft.lbs
Max. Make-up Torque :	45,100	ft.lbs
Min. Shouldering Torque :	4,100	ft.lbs
Max. Shouldering Torque :	36,900	ft.lbs

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 CDS : NSMAX-GR 18" 128.0# 95KSI
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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
18.000	128.0	0.688	NT-95DE	16.500	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.000	inch
Nominal ID :	16.624	inch
Nominal Cross section Area :	37.418	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,555	klb
Compression Yield Strength :	3,555	klb
External (collapse) Pressure :	3,180	psi
Internal Yield Pressure :	6,720	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.055	inch
Connection ID (nom) :	16.624	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	37.418	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	39,240	ft.lbs
Opt. Make-up Torque :	43,600	ft.lbs
Max. Make-up Torque :	47,960	ft.lbs
Min. Shouldering Torque :	4,360	ft.lbs
Max. Shouldering Torque :	39,240	ft.lbs

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	87.5	0.435	NT-95DE	17.567	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.755	inch
Nominal Cross section Area :	24.858	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,362	klb
Compression Yield Strength :	2,362	klb
External (collapse) Pressure :	790	psi
Internal Yield Pressure :	4,100	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.755	inch
Make-up Loss :	5.614	inch
Coupling Length :	12.409	inch
Critical Cross Section :	24.858	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	24,930	ft.lbs
Opt. Make-up Torque :	27,700	ft.lbs
Max. Make-up Torque :	30,470	ft.lbs
Min. Shouldering Torque :	2,770	ft.lbs
Max. Shouldering Torque :	24,930	ft.lbs

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	94.5	0.468	NT-95DE	17.501	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

Geometry

Nominal OD :	18.625	inch
Nominal ID :	17.689	inch
Nominal Cross section Area :	26.696	sqin.
Min. Wall Thickness :	92.5	%

Property

Tensile Yield Strength :	2,536	klb
Compression Yield Strength :	2,536	klb
External (collapse) Pressure :	970	psi
Internal Yield Pressure :	4,420	psi

Connection Data

Geometry

Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.689	inch
Make-up Loss :	5.614	inch
Coupling Length :	12.409	inch
Critical Cross Section :	26.696	sqin.

Efficiency

Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe

Torque

Min. Make-up Torque :	25,110	ft.lbs
Opt. Make-up Torque :	27,900	ft.lbs
Max. Make-up Torque :	30,690	ft.lbs
Min. Shouldering Torque :	2,790	ft.lbs
Max. Shouldering Torque :	25,110	ft.lbs

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
18.625	96.5	0.486	NT-95DE	17.500	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.653	inch
Nominal Cross section Area :	27.695	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,631	klb
Compression Yield Strength :	2,631	klb
External (collapse) Pressure :	1,080	psi
Internal Yield Pressure :	4,590	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.653	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	27.695	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	25,290	ft.lbs
Opt. Make-up Torque :	28,100	ft.lbs
Max. Make-up Torque :	30,910	ft.lbs
Min. Shouldering Torque :	2,810	ft.lbs
Max. Shouldering Torque :	25,290	ft.lbs

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
18.625	101.0	0.510	NT-95DE	17.500	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.605	inch
Nominal Cross section Area :	29.024	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,757	klb
Compression Yield Strength :	2,757	klb
External (collapse) Pressure :	1,250	psi
Internal Yield Pressure :	4,810	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.605	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	29.024	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	26,460	ft.lbs
Opt. Make-up Torque :	29,400	ft.lbs
Max. Make-up Torque :	32,340	ft.lbs
Min. Shouldering Torque :	2,940	ft.lbs
Max. Shouldering Torque :	26,460	ft.lbs

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CDS : NSMAX-GR 18-5/8" 106.0# 95KSI

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	106.0	0.531	NT-95DE	17.375	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.563	inch
Nominal Cross section Area :	30.184	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,867	klb
Compression Yield Strength :	2,867	klb
External (collapse) Pressure :	1,400	psi
Internal Yield Pressure :	5,010	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.563	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	30.184	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	27,450	ft.lbs
Opt. Make-up Torque :	30,500	ft.lbs
Max. Make-up Torque :	33,550	ft.lbs
Min. Shouldering Torque :	3,050	ft.lbs
Max. Shouldering Torque :	27,450	ft.lbs

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CDS : NSMAX-GR 18-5/8" 109.4# 95KSI

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	109.4	0.563	NT-95DE	17.311	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.499	inch
Nominal Cross section Area :	31.947	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,035	klb
Compression Yield Strength :	3,035	klb
External (collapse) Pressure :	1,650	psi
Internal Yield Pressure :	5,310	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.626	inch
Connection ID (nom) :	17.499	inch
Make-up Loss :	5.549	inch
Coupling Length :	12.280	inch
Critical Cross Section :	31.947	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	28,890	ft.lbs
Opt. Make-up Torque :	32,100	ft.lbs
Max. Make-up Torque :	35,310	ft.lbs
Min. Shouldering Torque :	3,210	ft.lbs
Max. Shouldering Torque :	28,890	ft.lbs

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CDS : NSMAX-GR 18-5/8" 112.0# 95KSI

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	112.0	0.579	NT-95DE	17.279	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.467	inch
Nominal Cross section Area :	32.825	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,118	klb
Compression Yield Strength :	3,118	klb
External (collapse) Pressure :	1,790	psi
Internal Yield Pressure :	5,460	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.467	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	32.825	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	39,150	ft.lbs
Opt. Make-up Torque :	43,500	ft.lbs
Max. Make-up Torque :	47,850	ft.lbs
Min. Shouldering Torque :	4,350	ft.lbs
Max. Shouldering Torque :	39,150	ft.lbs

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CDS : NSMAX-GR 18-5/8" 115.0# 95KSI

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	115.0	0.594	NT-95DE	17.249	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.437	inch
Nominal Cross section Area :	33.648	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,197	klb
Compression Yield Strength :	3,197	klb
External (collapse) Pressure :	1,930	psi
Internal Yield Pressure :	5,610	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.437	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	33.648	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	40,140	ft.lbs
Opt. Make-up Torque :	44,600	ft.lbs
Max. Make-up Torque :	49,060	ft.lbs
Min. Shouldering Torque :	4,460	ft.lbs
Max. Shouldering Torque :	40,140	ft.lbs

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CDS : NSMAX-GR 18-5/8" 122.0# 95KSI

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O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	122.0	0.636	NT-95DE	17.165	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.353	inch
Nominal Cross section Area :	35.943	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,415	klb
Compression Yield Strength :	3,415	klb
External (collapse) Pressure :	2,340	psi
Internal Yield Pressure :	6,000	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.353	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	35.943	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	40,140	ft.lbs
Opt. Make-up Torque :	44,600	ft.lbs
Max. Make-up Torque :	49,060	ft.lbs
Min. Shouldering Torque :	4,460	ft.lbs
Max. Shouldering Torque :	40,140	ft.lbs

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CDS : NSMAX-GR 18-5/8" 136.0# 95KSI

Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	136.0	0.693	NT-95DE	17.051	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.239	inch
Nominal Cross section Area :	39.040	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,709	klb
Compression Yield Strength :	3,709	klb
External (collapse) Pressure :	2,960	psi
Internal Yield Pressure :	6,540	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.239	inch
Make-up Loss :	6.252	inch
Coupling Length :	13.685	inch
Critical Cross Section :	39.040	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	40,680	ft.lbs
Opt. Make-up Torque :	45,200	ft.lbs
Max. Make-up Torque :	49,720	ft.lbs
Min. Shouldering Torque :	4,520	ft.lbs
Max. Shouldering Torque :	40,680	ft.lbs

Document No.

CDS : NSMAX-GR 20" 94.0# 95KSI

Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	94.0	0.438	NT-95DE	18.936	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	20.000	inch
Nominal ID :	19.124	inch
Nominal Cross section Area :	26.918	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,557	klb
Compression Yield Strength :	2,557	klb
External (collapse) Pressure :	650	psi
Internal Yield Pressure :	3,850	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.000	inch
Connection ID (nom) :	19.124	inch
Make-up Loss :	5.661	inch
Coupling Length :	12.504	inch
Critical Cross Section :	26.918	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	27,630	ft.lbs
Opt. Make-up Torque :	30,700	ft.lbs
Max. Make-up Torque :	33,770	ft.lbs
Min. Shouldering Torque :	3,070	ft.lbs
Max. Shouldering Torque :	27,630	ft.lbs

Document No.
 CDS : NSMAX-GR 20" 106.5# 95KSI
 Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	106.5	0.500	NT-95DE	18.812	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	20.000	inch
Nominal ID :	19.000	inch
Nominal Cross section Area :	30.631	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	2,910	klb
Compression Yield Strength :	2,910	klb
External (collapse) Pressure :	960	psi
Internal Yield Pressure :	4,390	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.000	inch
Connection ID (nom) :	19.000	inch
Make-up Loss :	5.596	inch
Coupling Length :	12.374	inch
Critical Cross Section :	30.631	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	27,900	ft.lbs
Opt. Make-up Torque :	31,000	ft.lbs
Max. Make-up Torque :	34,100	ft.lbs
Min. Shouldering Torque :	3,100	ft.lbs
Max. Shouldering Torque :	27,900	ft.lbs

Document No.
 CDS : NSMAX-GR 20" 117.0# 95KSI
 Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	117.0	0.563	NT-95DE	18.686	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	20.000	inch
Nominal ID :	18.874	inch
Nominal Cross section Area :	34.379	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,266	klb
Compression Yield Strength :	3,266	klb
External (collapse) Pressure :	1,350	psi
Internal Yield Pressure :	4,950	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.000	inch
Connection ID (nom) :	18.874	inch
Make-up Loss :	5.596	inch
Coupling Length :	12.374	inch
Critical Cross Section :	34.379	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	30,960	ft.lbs
Opt. Make-up Torque :	34,400	ft.lbs
Max. Make-up Torque :	37,840	ft.lbs
Min. Shouldering Torque :	3,440	ft.lbs
Max. Shouldering Torque :	30,960	ft.lbs

Document No.
 CDS : NSMAX-GR 20" 133.0# 95KSI
 Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	133.0	0.635	NT-95DE	18.542	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	20.000	inch
Nominal ID :	18.730	inch
Nominal Cross section Area :	38.631	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,670	klb
Compression Yield Strength :	3,670	klb
External (collapse) Pressure :	1,900	psi
Internal Yield Pressure :	5,580	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	18.730	inch
Make-up Loss :	6.315	inch
Coupling Length :	13.811	inch
Critical Cross Section :	38.631	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	40,500	ft.lbs
Opt. Make-up Torque :	45,000	ft.lbs
Max. Make-up Torque :	49,500	ft.lbs
Min. Shouldering Torque :	4,500	ft.lbs
Max. Shouldering Torque :	40,500	ft.lbs

Document No.
 CDS : NSMAX-GR 20" 144.0# 95KSI
 Rev.No. 1



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
20.000	144.0	0.693	NT-95DE	18.500	NSMAX™-GR

Grade - Material Property

Minimum Yield Strength :	95	ksi
Maximum Yield Strength :	110	ksi
Minimum Tensile Strength :	105	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	20.000	inch
Nominal ID :	18.614	inch
Nominal Cross section Area :	42.034	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	3,993	klb
Compression Yield Strength :	3,993	klb
External (collapse) Pressure :	2,430	psi
Internal Yield Pressure :	6,090	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	18.614	inch
Make-up Loss :	6.315	inch
Coupling Length :	13.811	inch
Critical Cross Section :	42.034	sqin.
<u>Efficiency</u>		
Tension Efficiency :	100	% of pipe
Compression Efficiency :	100	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque</u>		
Min. Make-up Torque :	40,770	ft.lbs
Opt. Make-up Torque :	45,300	ft.lbs
Max. Make-up Torque :	49,830	ft.lbs
Min. Shouldering Torque :	4,530	ft.lbs
Max. Shouldering Torque :	40,770	ft.lbs