

Connection Data Sheet

NSMAX™ -GR-PS

Material Grade: 55 ksi

Available Sizes

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

Document No.

CDS : NSMAX-GR-PS 18" 94.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	94.0	0.500	J55	16.812	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,512	klb
Compression Yield Strength :	1,512	klb
External (collapse) Pressure :	1,060	psi
Internal Yield Pressure :	2,830	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.063	inch
Connection ID (nom) :	17.000	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	24.740	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	14,850	ft.lbs
Opt. Make-up Torque :	16,500	ft.lbs
Max. Make-up Torque :	19,800	ft.lbs

Document No.
CDS : NSMAX-GR-PS 18" 105.0# 55KSI
 Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.000	105.0	0.562	J55	16.688	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,693	klb
Compression Yield Strength :	1,693	klb
External (collapse) Pressure :	1,440	psi
Internal Yield Pressure :	3,180	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	19.063	inch
Connection ID (nom) :	16.876	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	27.709	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	16,470	ft.lbs
Opt. Make-up Torque :	18,300	ft.lbs
Max. Make-up Torque :	21,960	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 87.5# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	87.5	0.435	J55	17.567	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,367	klb
Compression Yield Strength :	1,367	klb
External (collapse) Pressure :	630	psi
Internal Yield Pressure :	2,380	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.755	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	22.372	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	10,530	ft.lbs
Opt. Make-up Torque :	11,700	ft.lbs
Max. Make-up Torque :	14,040	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 94.5# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	94.5	0.468	J55	17.501	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	ksi

Pipe Body Data (PE)

<u>Geometry</u>		
Nominal OD :	18.625	inch
Nominal ID :	17.689	inch
Nominal Cross section Area :	26.696	sqin.
Min. Wall Thickness :	92.5	%
<u>Property</u>		
Tensile Yield Strength :	1,468	klb
Compression Yield Strength :	1,468	klb
External (collapse) Pressure :	780	psi
Internal Yield Pressure :	2,560	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.689	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	24.026	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	11,340	ft.lbs
Opt. Make-up Torque :	12,600	ft.lbs
Max. Make-up Torque :	15,120	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 96.5# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
18.625	96.5	0.486	J55	17.500	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,523	klb
Compression Yield Strength :	1,523	klb
External (collapse) Pressure :	880	psi
Internal Yield Pressure :	2,660	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.653	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	24.925	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	14,670	ft.lbs
Opt. Make-up Torque :	16,300	ft.lbs
Max. Make-up Torque :	19,560	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 101.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Special Drift D. (inch)	Connection
18.625	101.0	0.510	J55	17.500	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,596	klb
Compression Yield Strength :	1,596	klb
External (collapse) Pressure :	1,020	psi
Internal Yield Pressure :	2,790	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.605	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	26.122	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	15,390	ft.lbs
Opt. Make-up Torque :	17,100	ft.lbs
Max. Make-up Torque :	20,520	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 106.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	106.0	0.531	J55	17.375	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,660	klb
Compression Yield Strength :	1,660	klb
External (collapse) Pressure :	1,140	psi
Internal Yield Pressure :	2,900	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.563	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	27.166	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	16,020	ft.lbs
Opt. Make-up Torque :	17,800	ft.lbs
Max. Make-up Torque :	21,360	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 109.4# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	109.4	0.563	J55	17.311	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,757	klb
Compression Yield Strength :	1,757	klb
External (collapse) Pressure :	1,330	psi
Internal Yield Pressure :	3,080	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.499	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	28.752	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	16,920	ft.lbs
Opt. Make-up Torque :	18,800	ft.lbs
Max. Make-up Torque :	22,560	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 112.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	112.0	0.579	J55	17.279	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,805	klb
Compression Yield Strength :	1,805	klb
External (collapse) Pressure :	1,420	psi
Internal Yield Pressure :	3,160	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.467	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	29.543	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	22,320	ft.lbs
Opt. Make-up Torque :	24,800	ft.lbs
Max. Make-up Torque :	29,760	ft.lbs

Document No.

CDS : NSMAX-GR-PS 18-5/8" 115.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
18.625	115.0	0.594	J55	17.249	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,851	klb
Compression Yield Strength :	1,851	klb
External (collapse) Pressure :	1,510	psi
Internal Yield Pressure :	3,250	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	20.000	inch
Connection ID (nom) :	17.437	inch
Make-up Loss :	5.374	inch
Coupling Length :	10.748	inch
Critical Cross Section :	30.283	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	22,860	ft.lbs
Opt. Make-up Torque :	25,400	ft.lbs
Max. Make-up Torque :	30,480	ft.lbs

Document No.
CDS : NSMAX-GR-PS 20" 94.0# 55KSI
 Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	94.0	0.438	J55	18.936	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,480	klb
Compression Yield Strength :	1,480	klb
External (collapse) Pressure :	520	psi
Internal Yield Pressure :	2,230	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	19.124	inch
Make-up Loss :	5.413	inch
Coupling Length :	10.827	inch
Critical Cross Section :	24.226	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	11,430	ft.lbs
Opt. Make-up Torque :	12,700	ft.lbs
Max. Make-up Torque :	15,240	ft.lbs

Document No.

CDS : NSMAX-GR-PS 20" 106.5# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	106.5	0.500	J55	18.812	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,685	klb
Compression Yield Strength :	1,685	klb
External (collapse) Pressure :	770	psi
Internal Yield Pressure :	2,540	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	19.000	inch
Make-up Loss :	5.413	inch
Coupling Length :	10.827	inch
Critical Cross Section :	27.567	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	16,200	ft.lbs
Opt. Make-up Torque :	18,000	ft.lbs
Max. Make-up Torque :	21,600	ft.lbs

Document No.

CDS : NSMAX-GR-PS 20" 117.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	117.0	0.563	J55	18.686	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	1,891	klb
Compression Yield Strength :	1,891	klb
External (collapse) Pressure :	1,100	psi
Internal Yield Pressure :	2,860	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	18.874	inch
Make-up Loss :	5.413	inch
Coupling Length :	10.827	inch
Critical Cross Section :	30.941	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	18,000	ft.lbs
Opt. Make-up Torque :	20,000	ft.lbs
Max. Make-up Torque :	24,000	ft.lbs

Document No.

CDS : NSMAX-GR-PS 20" 133.0# 55KSI

Rev.No. 0



O.D. (inch)	Weight (lb/ft)	Wall Thickness (inch)	Grade	Drift D. (inch)	Connection
20.000	133.0	0.635	J55	18.542	NSMAX™-GR-PS

Grade - Material Property

Minimum Yield Strength :	55	ksi
Maximum Yield Strength :	80	ksi
Minimum Tensile Strength :	75	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 :	2,125	klb
Compression Yield Strength :	2,125	klb
External (collapse) Pressure :	1,500	psi
Internal Yield Pressure :	3,230	psi

Connection Data

<u>Geometry</u>		
Connection OD (nom) :	21.063	inch
Connection ID (nom) :	18.730	inch
Make-up Loss :	5.413	inch
Coupling Length :	10.827	inch
Critical Cross Section :	34.768	sqin.
<u>Efficiency</u>		
Tension Efficiency :	90	% of pipe
Compression Efficiency :	90	% of pipe
External Pressure Efficiency :	100	% of pipe
Internal Pressure Efficiency :	100	% of pipe
<u>Torque (Field end Make up)</u>		
Min. Make-up Torque :	24,840	ft.lbs
Opt. Make-up Torque :	27,600	ft.lbs
Max. Make-up Torque :	33,120	ft.lbs