

 	ESPECIFICACIÓN TÉCNICA		Nº 03-ET-21.15-200-001
	CLIENTE:	YPFB TRANSIERRA S.A.	
	PROYECTO:	INGENIERÍA BÁSICA Y DE DETALLE ESTACIÓN DE COMPRESIÓN PARAPETÍ	
	AREA:	ESTACIÓN DE COMPRESIÓN PARAPETÍ	
TITULO:		ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES	

ARCHIVO : EXCEL / VER. 2007 / 03-ET-21.15-200-001=0.XLSX

ÍNDICE DE REVISIONES

REV.	DESCRIPCIÓN Y/O HOJAS AFECTADAS
A	EMISIÓN ORIGINAL
B	PARA APROBACIÓN
0	PARA CONSTRUCCIÓN

PROYECTO - ESTACION DE COMPRESION PARAPETI (ECP)



Transierra S.A.

RECHAZADO.....
LIBERADO CON OBSERVACIONES
LIBERADO.....

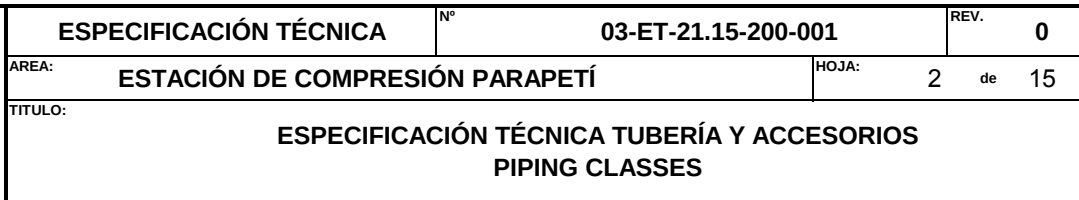
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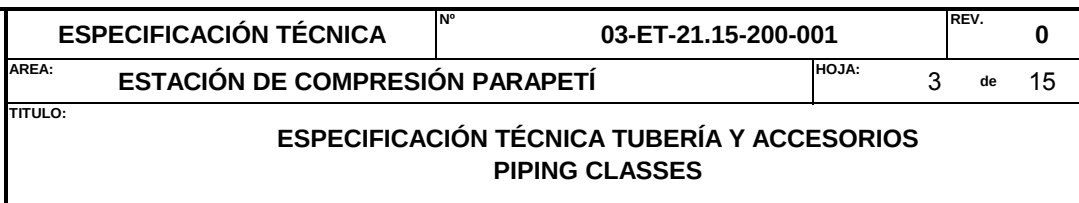
FIRMA DEL RESPONSABLE

	REV. A	REV. B	REV. 0	REV. D	REV. E	REV. F	REV. G	REV. H	REV. I
FECHA	12/06/2015	20/07/2015	10/11/2015						
PROYECTO	INESCO S.A.	INESCO S.A.	INESCO S.A.						
EJECUCION	R.PADILLA	E.SÁNCHEZ	E.SÁNCHEZ						
VERIFICACION	L.ROBLES	L.ROBLES	L.ROBLES						
APROBACION	R.TORRES	R.TORRES	R.TORRES						

LAS INFORMACIONES DE ESTE DOCUMENTO SON PROPIEDAD DE YPFB TRANSIERRA S.A., SIENDO PROHIBIDA SU UTILIZACIÓN FUERA DE SU FINALIDAD.



CLASS	SERVICE	FLANGE RATING	TEMPERATURE RANGE	CORROSION	MATERIAL	CODE	PAGE
CA20	INSTRUMENT AIR (AI), PLANT AIR (AS), UTILITY WATER (AD)	150 # RF	-29 / 204 ° C	1,6 mm	CARBON STEEL	B31.3	4 a 5
CA20	LOW PRESSURE FUEL GAS (HC), VENTS (HC), DRAINS (DR)	150 # RF	-29 / 204 ° C	1,6 mm	CARBON STEEL	B31.8 F=0,5	4 a 5
CA40	MEDIUM PRESSURE FUEL GAS (GC)	300 # RF	-29 / 204 ° C	1,6 mm	CARBON STEEL	B31.8 F=0,5	6 a 7
YN100	GAS OR LIQUID HYDROCARBON (G100)	600 # RF	-29 / 60 ° C	3,2 mm	CARBON STEEL	B31.8 F=0,5	8 a 10
YN110	GAS OR LIQUID HYDROCARBON (G100)	900 # RTJ	-29 / 110 ° C	3,2 mm	CARBON STEEL	B31.8 F=0,5	11 a 12
SD16	LUBRICATING OIL (AC)	150 # RF	-29 / 149 ° C	0 mm	STAINLESS STEEL	B31.3	13 a 14



CLASS	CODE	SERVICE	RATING	SIZE	% of Welding to Examine by Rx
CA20	B31.3	INSTRUMENT AIR (AI), PLANT AIR (AS), UTILITY WATER (AD)	150 # RF	ALL	5%
CA20	B31.8	LOW PRESSURE FUEL GAS (HC), VENTS (HC), DRAINS (DR)	150 # RF	D greater than 6" D= 6" or less	100% 5%
CA40	B31.8	MEDIUM PRESSURE FUEL GAS (GC)	300 # RF	D greater than 6" D=6" or less	100% 5%
B	B31.8	GAS OR LIQUID HYDROCARBON (G100)	600 # RF	D greater than 2" D=2" or less	100% 50%
YN110	B31.8	GAS OR LIQUID HYDROCARBON (G100)	900 # RF	D greater than 6" D=6" or less	100% 50%
SD16	B31.3	LUBRICATING OIL (AC)	150 # RF	ALL	10%

1) In order to determine the welding % to be examined by radiography, statements of items 826.1 and 826.2 ASME / ANSI B31.8 must be met:

When the piping system is intended to operate at Hoop Stress Levels of less than 20% of Specified Minimum Yield Strength: $\sigma_t < 0,20 \cdot \text{SMYS}$ (with any piping size), radiography examination it is not necessary and the quality of welding shall be checked visually on a sampling basis.

When the piping system is intended to operate at Hoop Stress Levels of 20% or more of Specified Minimum Yield Strength: $\sigma_t \geq 0,20 \cdot \text{SMYS}$, with diam 6" or more, minimum percentage to be examined by Rx is 100%.

When piping system is intended to operate at Hoop Stress Levels of 40% or less of Specified Minimum Yield Strength: $\sigma_t \leq 0,40 \cdot \text{SMYS}$, with pipe size less than NPS 6" radiographic examination it is not necessary.

2) Although before statements, regarding loss pressure piping classes minimum % of welding to be RX examined shall be 5%, and regarding high pressure piping classes shall be 50%.

	ESPECIFICACIÓN TÉCNICA				N° 03-ET-21.15-200-001		REV. 0	
	AREA: ESTACIÓN DE COMPRESIÓN PARAPETÍ						HOJA: 4 de 15	
	TITULO: ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES							

CLASS:	CA20				FLANGE CLASS: 150 lbs				
TEMPERATURE LIMIT	°C	-29a38	93,3	148,9	204	CORROSION: 1,6 mm			
ARCHIVO : EXCEL / VER. 2007 . kg/cm²		20	18,3	16,2	14	MATERIAL: CARBON STEEL			
DESIGN PRESSURE	18,3 kg/cm² @ 93,3 °C					CODE: SEE SUMMARY			
SERVICE:	LOW PRESSURE FUEL GAS, INSTRUMENT AIR, PLANT AIR, VENTS, UTILITY WATER, DRAINS								

DESCRIPTION	MATERIAL	SCH.	RATING	DIM. CODE	ENDS	SIZE	NOTES
SEAMLESS PIPING	ASTM A-53 Gr. B or A-106 Gr.B or API 5L Gr.B	80		ANSI B 36.10	PE	½" - 1½"	(11)
SEAMLESS PIPING		40		ANSI B 36.10	BW	2" - 6"	(1)(11)(15)
SEAMLESS PIPING		20		ANSI B 36.10	BW	8" - 12"	(1) (11)(17)
WELDED (ERW) PIPING		10		ANSI B 36.10	BW	14" - 18"	(1)(11)(13)(17)
WELDED (ERW) PIPING		10		ANSI B 36.10	BW	20"	(1)(11)(12)(13)(17)
	ASTM A-53Gr. B or API 5L Gr. B	20		ANSI B 36.10	BW	24"	(1)(11)(13)(17)
		80		ANSI B 36.10	NPT	½" - 2½"	(10)
SEAMLESS PIPING (NIPPLE)	ASTM A-53 Gr. B or A-106 Gr.B or API 5L Gr.B	40		ANSI B 36.10	NPT	3" - 4"	(10)
SEAMLESS PIPING (NIPPLE)							
FORGED FITTINGS	ASTM A-105		3000#	ANSI B 16.11	SW	½" - 1½"	(6)
FORGED FITTINGS	ASTM A-105		3000#	ANSI B 16.11	NPT	½" - 1½"	(7) (10)
WROUGHT PIPE FITTINGS	ASTM A-234 Gr. WPB	(3)		ANSI B 16.9	BW	2" - 24"	(8)
FLANGE	ASTM A-105	80	150#	ANSI B 16.5	SW / RF	½" - 1½"	(2)
FLANGE	ASTM A-105		150#	ANSI B 16.5	SO / RF	2" - 24"	(2)
FLANGE	ASTM A-105	(3)	150#	ANSI B 16.5	WN / RF	2" - 24"	(2) (5)
BLIND FLANGE	ASTM A-105		150#	ANSI B 16.5	BLIND RF	½" - 24"	(2)
ORIFICE FLANGE	ASTM A-105	(3)	300#	ANSI B 16.36	WN / RF	1" - 24"	(2)
GASKETS	FLAT RING LAP "NON-ASBESTOS"		150#	ANSI B 16.21		½" - 24"	(14)
STUD BOLTS	ASTM A-193 Gr. B7						(4)
NUTS	ASTM A-194 Gr. 2H						
SPECTACLE	ASTM A-516 Gr. 70		150#	ANSI B 16.5	RF	½" - 24"	(2) (9)
DRIP RING	ASTM A-516 Gr. 70		150#	ANSI B 16.5	RF	½" - 12"	
ISO KIT	GARLOK BLUE GARD 3000		150#	ANSI B 16.5	RF	½" - 24"	
WELDOLET	ASTM A-105	40		MSS SP-97	BW	2" - 4"	
SOCKOLET	ASTM A-105		3000#	MSS SP-97	SW	½" - 1½"	
LATROLET	ASTM A-105		3000#	MSS SP-97	SW	½" - 1½"	
LATROLET	ASTM A-105	40		MSS SP-97	BW	2" - 4"	
ELBOLET	ASTM A-105		3000#	MSS SP-97	SW - NPT	½" - 1½"	(10)
ELBOLET	ASTM A-105	40		MSS SP-97	BW	2" - 4"	
SWAGE NIPPLE	ASTM A-106 Gr. B	(3)(16)		ANSI B 36.10	BW-PE-NPT	½" - 4"	(10)
BRANCH REINFORCEMENT	ASTM A-106 Gr. B	(3)		ANSI B 36.10		6" - 14"	

NOTES: (1) BEVELED ENDS ACCORDING TO ANSI B16.25.
(2) CONCENTRIC OR SPIRAL SERRATED FACING FINISH.
(3) SCHEDULE ACCORDING TO PIPE SCHEDULE.
(4) LENGTH ACCORDING TO ANSI B16.5 (EXCEPT FOR PSV, ORIFICE PLATE, DRIP RING, WAFER TYPE VALVES).
(5) WNRF FLANGE SHALL BE USED FOR OPERATING TEMP. > 130°C OR FOR RECIPROCATING COMPRESSORS PIPING.
(6) SW ENDS SHALL BE USED FOR 90° ELBOW, 45° ELBOW, EQUAL TEE, RED. TEE, COUPLING, RED. COUPLING, RED. INSERTS.
(7) NPT ENDS SHALL BE USED FOR COUPLING, LARGE COUPLING (LENGTH WILL BE 1" OVER INSULATION THICKNESS), HEX. HEAD PLUG, HEXAGONAL NIPPLE.
(8) BW SHALL BE USED FOR 90° L.R. ELBOW, 45° L.R. ELBOW, EQUAL TEE, REDUCING TEE, CONCENTRIC/EXCENTRIC RED., CAPS.
(9) DRAIN HOLE, SHALL BE ½" DIAM. THREADED TYPE UP TO 3" PIPE DIAM. AND 3/4" UPPER TO 3" PIPE DIAM.
(10) NPT END ACCORDING TO ANSI B1.20.1.
(11) UNDERGROUND PIPES SHALL HAVE A THREE LAYER POLYETHYLENE EXTERNAL COATING.
(12) ALTERNATIVE SEAMLESS PIPE.
(13) ERW: ELECTRICAL RESISTANCE WELDED.
(14) FOR ORIFICE FLANGE GASKETS SEE CLASS CA40.
(15) IF THREADED CONNECTIONS ARE REQUIRED, THEN SEAMLESS NIPPLE WITH SPECIFIED THCK. SHALL BE USED.
(16) THCK. NPT END SHALL BE EQUAL TO THCK. SEAMLESS NIPPLE.
(17) ALTERNATIVELY, ERW API 5L GRADE UP TO X52 CAN BE USED.

LAS INFORMACIONES DE ESTE DOCUMENTO SON PROPIEDAD DE YPFB TRANSIERRA S.A., SIENDO PROHIBIDA SU UTILIZACIÓN FUERA DE SU FINALIDAD.



ESPECIFICACIÓN TÉCNICA

Nº

03-ET-21.15-200-001

REV.

0

AREA:

ESTACIÓN DE COMPRESIÓN PARAPETÍ

HOJA:

5 de 15

TITULO:

ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES

CA20

BRANCH SIZE	24"																		5
	20"																	5	3
	18"																5	3	3
	16"															5	3	3	3
	14"													5	3	3	3	3	7
	12"												5	3	3	3	3	7	7
	10"												5	3	3	3	7	7	7
	8"												5	3	3	3	7	7	7
	6"												5	3	3	3	3	7	7
	4"												5	3	3	3	6	6	6
	3"												5	3	3	6	6	6	6
	2 1/2"												5	3	3	3	6	6	6
	2"												5	3	3	3	6	6	6
	1 1/2"												5	3	3	3	6	6	6
	1 1/4"												5	3	3	3	6	6	6
	1"												5	3	3	3	6	6	6
	3/4"												5	3	3	3	6	6	6
	1/2"												5	3	3	3	6	6	6
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												5	3	3	3	6	6	6	
												5	3	3	3	6	6	6	
												5	3	3	3	6	6	6	

RUN SIZE

- 1 S.W. EQUAL TEE
- 2 S.W. REDUCING TEE
- 3 BEVELED END REDUCING TEE (* MINOR BRANCH SHALL BE BEVELED END)
- 4 a) S.W. COUPLING
b) NPT COUPLING (INSTRUMENT MOUNTING, DRAINS AND VENTS FOR HYDROSTATICS TEST)
c) NPT / S.W. ELBOLET
d) S.W. LATROLET
- 5 BEVELED END EQUAL TEE
- 6 a) WELDOLET
b) BEVELED END ELBOLET (BRANCH SIZE UP TO 2")
c) BEVELED END LATROLET (BRANCH SIZE UP TO 2")
- 7 REINFORCEMENT PAD IF REQUIRED
- 8 SOCKOLET

CA40

BRANCH SIZE	12"													5
	10"											5	3	3
	8"										5	3	3	3
	6"									5	3	3	3	3
	4"								5	3	3	3	3	6
	3"							5	3	3	6	6	6	6
	2 1/2"						5	3	3	3	6	6	6	6
	2"					5	3	3	3	6	6	6	6	6
	1 1/2"				1	3*	3*	3*	7	4	4	4	4	4
	1 1/4"			1	2	3*	3*	3*	7	4	4	4	4	4
	1"		1	2	2	3*	7	7	4	4	4	4	4	4
	3/4"	1	2	2	2	7	7	4	4	4	4	4	4	4
	1/2"	1	2	2	2	4	4	4	4	4	4	4	4	4
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"

RUN SIZE

- 1 S.W. EQUAL TEE
- 2 S.W. REDUCING TEE
- 3 BEVELED END REDUCING TEE (* MINOR BRANCH SHALL BE BEVELED END)
- 4 a) S.W. COUPLING
b) NPT COUPLING (INSTRUMENT MOUNTING, DRAINS AND VENTS FOR HYDROSTATICS TEST)
c) NPT / S.W. ELBOLET
d) S.W. LATROLET
- 5 BEVELED END EQUAL TEE
- 6 a) WELDOLET
b) BEVELED END ELBOLET (BRANCH SIZE UP TO 2")
c) BEVELED END LATROLET (BRANCH SIZE UP TO 2")
- 7 SOCKOLET



	ESPECIFICACIÓN TÉCNICA		Nº	03-ET-21.15-200-001	REV.	0
	AREA: ESTACIÓN DE COMPRESIÓN PARAPETÍ				HOJA:	9 de 15
	TITULO: ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES					

NOTES (CONT.)

- (6) BW SHALL BE USED FOR 90° L.R. ELBOW, 45° L.R. ELBOW, EQUAL TEE, RED. TEE, CONCENTRIC RED., EXCENTRIC RED., CAPS.
- (7) DRAIN HOLE, SHALL BE ½" DIAM. THREADED TYPE UP TO 3" PIPE DIAM. AND ¾" UPPER TO 3" PIPE DIAM.
- (8) UNDERGROUND PIPES SHALL HAVE A THREE LAYER POLYETHYLENE EXTERNAL COATING.
- (9) NPT ENDS SHALL BE USED FOR COUPLING, LARGE COUPLING (LENGTH WILL BE 1" OVER INSULATION THICKNESS).
- (11) TYPE "A".
- (12) NPT END ACCORDING TO ANSI B1.20.1.
- (13) ERW: ELECTRIC RESISTANCE WELDING (Join factor E=1 Acc. to ASME B31.8 Table 841.1.1.7-1).
- (14) IF THREADED CONNECTIONS ARE REQUIRED ,THEN SEAMLESS NIPPLE WITH SPECIFIED THCK. SHALL BE USED.
- (15) THCK. NPT END SHALL BE EQUAL TO THCK. SEAMLESS NIPPLE.
- (16) ALTERNATIVE SAW: SUBMERGED ARC WELD (Join factor E=1 Acc. to ASME B31.8 Table 841.1.1.7-1).

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- 1 S.W. EQUAL TEE
- 2 S.W. REDUCING TEE
- 3 BEVELED END REDUCING TEE (* MINOR BRANCH SHALL BE BEVELED END)
- 4 a) S.W. COUPLING
b) S.W. ELBOLET
c) S.W. LATROLET
- 5 BEVELED END EQUAL TEE
- 6 a) WELDOLET
b) BEVELED END ELBOLET (BRANCH SIZE UP TO 2")
c) BEVELED END LATROLET (BRANCH SIZE UP TO 2")
- 7 SOCKOLET



	ESPECIFICACIÓN TÉCNICA		Nº	03-ET-21.15-200-001	REV.	0
	AREA: ESTACIÓN DE COMPRESIÓN PARAPETÍ				HOJA:	12 de 15
	TITULO: ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES					

NOTES (CONT.)

- (13) ERW: ELECTRIC RESISTANCE WELDING (Join factor E=1 Acc. to ASME B31.8 Table 841.1.1.7-1).
- (14) IF THREADED CONNECTIONS ARE REQUIRED ,THEN SEAMLESS NIPPLE WITH SPECIFIED THCK. SHALL BE USED.
- (15) THCK. NPT END SHALL BE EQUAL TO THCK. SEAMLESS NIPPLE.
- (16) ALTERNATIVE SAW: SUBMERGED ARC WELD (Join factor E=1 Acc. to ASME B31.8 Table 841.1.1.7-1).

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[illegible]

RUN SIZE

- 1 S.W. EQUAL TEE
- 2 S.W. REDUCING TEE
- 3 a) BEVELED END REDUCING TEE (RECOMMENDED) (* MINOR BRANCH SHALL BE BEVELED END)
b) WELDOLET (IN SPECIAL CASES)
- 4 a) S.W. COUPLING
b) S.W. ELBOLET
c) S.W. LATROLET
- 5 BEVELED END EQUAL TEE
- 6 a) WELDOLET
b) BEVELED END ELBOLET (BRANCH SIZE UP TO 2")
c) BEVELED END LATROLET (BRANCH SIZE UP TO 2")
- 7 SOCKOLET

	ESPECIFICACIÓN TÉCNICA		N° 03-ET-21.15-200-001		REV. 0		
	AREA: ESTACIÓN DE COMPRESIÓN PARAPETÍ					HOJA: 14 de 15	
	TITULO: ESPECIFICACIÓN TÉCNICA TUBERÍA Y ACCESORIOS PIPING CLASSES						

CLASS:	SD16			FLANGE CLASS:	150 lbs		
TEMPERATURE LIMIT	°C	-29a38	93,3	CORROSION:	0 mm		
ARCHIVO :	EXCEL / VER. 2007 .kg/cm²	16	13,7	MATERIAL:	STAINLESS STEEL		
DESIGN PRESSURE	13,7 kg/cm² @ 93,3 °C			CODE:	B31.3		
SERVICE:	LUBRICATING OIL						

DESCRIPTION	MATERIAL	SCH.	RATING	DIM. CODE	ENDS	SIZE	NOTES
SEAMLESS PIPING	ASTM A-312 TP. 316L	40S		ANSI B 36.19	PE	½" - 1½"	(12)
WELDED (EFW) OR SMLS. PIPING	ASTM A-312 TP. 316L or	40S		ANSI B 36.19	BW	2"	(1) (10)
WELDED (EFW) OR SMLS. PIPING	ASTM A-358 Gr. 316L	10S		ANSI B 36.19	BW	2½" - 14"	(1) (10)
WELDED (EFW) OR SMLS. PIPING	Class 1 Fusion Welded	5S		ANSI B 36.19	BW	30"	(1) (10)
	ASTM A-312 TP. 316L	80S		ANSI B 36.19	NPT	¼" - 1½"	(9)
SEAMLESS PIPING (NIPPLE)		40S		ANSI B 36.19	NPT	2" - 4"	(9)
FORGED FITTINGS	ASTM A-182 Gr. F 316L		3000#	ANSI B 16.11	SW	½" - 1½"	(5)
FORGED FITTINGS	ASTM A-182 Gr. F 316L		3000#	ANSI B 16.11	NPT	½" - 1½"	(6) (9)
WROUGHT PIPE FITTINGS	ASTM A-403 WP F 316L	(3)		ANSI B 16.9	BW	2" - 14"	(7)
FLANGE	ASTM A-182 Gr. F 316L	40S	150#	ANSI B 16.5	SW / RF	½" - 1½"	(2)
FLANGE	ASTM A-182 Gr. F 316L		150#	ANSI B 16.5	SO / RF	2" - 14"	(2)
FLANGE	ASTM A-182 Gr. F 316L	5S	150#	ANSI B 16.47	WN / RF	30"	(2) (11)
BLIND FLANGE	ASTM A-182 Gr. F 316L		150#	ANSI B 16.5	BLIND RF	½" - 14"	(2)
BLIND FLANGE	ASTM A-182 Gr. F 316L		150#	ANSI B 16.47	BLIND RF	30"	(2) (11)
ORIFICE FLANGE	ASTM A-182 Gr. F 316L	(3)	300#	ANSI B 16.36	WN / RF	1" - 14"	(2)
GASKETS	316 SS / GRAPHITED SPIRAL WOUND t=4,5mm EXTERNAL RING CS ZINC		150#	ANSI B 16.20		½" - 6"	
	316 SS / GRAPHITED SPIRAL WOUND t=4,5mm EXTERNAL RING CS ZINC INTERNAL RING 316 SS		150# 150#	ANSI B 16.20 ANSI B 16.20		8" - 14" 30"	(11)
STUD BOLTS ZINC PLATED	ASTM A-193 Gr. B7 M						(4)
NUTS ZINC PLATED	ASTM A-194 Gr. 2H M						
SPECTACLE	AISI-316		150#	ANSI B 16.5	RF	½" - 14"	
DRIP RING	AISI-316		150#	ANSI B 16.5	RF	½" - 14"	(2) (8)
ISO KIT	TEFLON		150#	ANSI B 16.5	RF	½" - 14"	
SWAGE NIPPLE	ASTM A-312 TP. 316L or ASTM A-358 Gr. 316L	(3)		ANSI B 36.10	BW-PE-NPT	½" - 4"	(9)
BRANCH REINFORCEMENT	Class 1 Fusion Welded	(3)(13)		ANSI B 36.10		6" - 14"	

NOTES:

- BEVELED ENDS ACCORDING TO ANSI B 16.25.
- CONCENTRIC OR SPIRAL SERRATED FACING FINISH.
- SCHEDULE ACCORDING TO PIPE SCHEDULE.
- LENGTH ACCORDING TO ANSI B16.5 (EXCEPT FOR PSV, ORIFICE PLATE, DRIP RING, WAFER TYPE VALVES).
- SW ENDS SHALL BE USED FOR 90° ELBOW, 45° ELBOW, EQUAL TEE, RED. TEE, COUPLING, RED. COUPLING, RED. INSERTS.
- NPT ENDS SHALL BE USED FOR COUPLING, LARGE COUPLING (LENGTH WILL BE 1" OVER INSULATION THICKNESS), RED. COUPLING, HEX. HEAD PLUG, HEXAGONAL NIPPLE.
- BW SHALL BE USED FOR 90° L.R. ELBOW, 45° L.R. ELBOW, EQUAL TEE, REDUCING TEE, CONCENTRIC RED., EXCENTRIC RED., CAPS.
- DRAIN HOLE, SHALL BE ½" DIAM. THREADED TYPE UP TO 3" PIPE DIAM. AND ¾" UPPER TO 3" PIPE DIAM.
- NPT END ACCORDING TO ANSI B1.20.1.
- EFW: ELECTRICAL FUSION WELDED.
- SERIAL "A".
- IF THREADED CONNECTIONS ARE REQUIRED, THEN SEAMLESS NIPPLE WITH SPECIFIED THCK. SHALL BE USED.
- THCK. NPT END SHALL BE EQUAL TO THCK. SEAMLESS NIPPLE.

LAS INFORMACIONES DE ESTE DOCUMENTO SON PROPIEDAD DE YPFB TRANSIERRA S.A., SIENDO PROHIBIDA SU UTILIZACIÓN FUERA DE SU FINALIDAD.

SD16

BRANCH SIZE	14"														5	
	12"													5	3	
	10"												5	3	3	
	8"											5	3	3	3	
	6"											5	3	3	3	
	4"										5	3	3	3	6	6
	3"								5	3	3	6	6	6	6	
	2 1/2"							5	3	3	3	6	6	6	6	
	2"							5	3	3	3	6	6	6	6	
	1 1/2"					1	3*	3*	3*	6	4	4	4	4	4	4
	1 1/4"				1	2	3*	3*	3*	6	4	4	4	4	4	4
	1"			1	2	2	3*	6	6	4	4	4	4	4	4	4
	3/4"		1	2	2	2	6	6	4	4	4	4	4	4	4	4
	1/2"	1	2	2	2	2	4	4	4	4	4	4	4	4	4	4
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"	10"	12"	14"	30"

RUN SIZE

- 1 S.W. EQUAL TEE
- 2 S.W. REDUCING TEE
- 3 BEVELED END REDUCING TEE (* MINOR BRANCH SHALL BE BEVELED END)
- 4 a) S.W. COUPLING
b) NPT COUPLING (INSTRUMENT MOUNTING, DRAINS AND VENTS FOR HYDROSTATICS TEST)
- 5 BEVELED END EQUAL TEE
- 6 REINFORCEMENT PAD IF REQUIRED