

JOB NO.: J447
CLIENT: SPEC
SUBJECT: 60MMSCFD Cryo Plant

DATE: 7/10/13
BY: SHP
P.O. #

CONE STRAINER

TAG NUMBER	SP-141	SP-201A	SP-201C	SP-206A	SP-206B	SP-204A	SP-204B	SP-205	SP-101A
LINE NUMBER	123-D1-CS-4"	150-D1-CS-8"	150-D1-CS-8"	159-D1-LT-6"	175-B0-304-10"	153-D1-CS-6"	204-B1-LT-6"	201-B0-304-6"	179-B1-CS-10"
P&ID SHEET	221	231	231	231	231	231	231	231	233
SERVICE	C-141	E-201	E-201	E-206	E-206	E-204	E-204	E-205	EC-101
PIPE SIZE	4" XH	8" XH	8" XH	6" XH	10" S/40S	6" XH	6" Std.	6" S/40S	10" Std.
FLANGE RATING	600# RF	600# RF	600# RF	600# RF	300# RF	600# RF	300# RF	300# RF	300# RF
RING									
MATERIAL	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS
THICKNESS	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"	0.125"
CONE									
MATERIAL	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS
% OPEN AREA	200%	300%	300%	300%	300%	300%	300%	300%	200%
LENGTH	7" Long	21" Long	21" Long	17" Long	26" Long	17" Long	17" Long	17" Long	17" Long
DIRECTION	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow
TYPE	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone
SCREEN									
MATERIAL	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS	304SS
MESH SIZE	30 Mesh	80 Mesh	80 Mesh	80 Mesh	80 Mesh	80 Mesh	80 Mesh	80 Mesh	40 Mesh
INSIDE / OUTSIDE	Outside	Outside	Outside	Outside	Outside	Outside	Outside	Outside	Outside
					NOTE 1				
MANUFACTURER	Titan	Titan	Titan	Titan	Titan	Titan	Titan	Titan	Titan
MODEL	PS16	PS16	PS16	PS16	PS16	PS16	PS16	PS16	PS16

Note 1) Cross-braced on the inside for 20-25psi differential.

JOB NO.: J447
CLIENT: SPEC
SUBJECT: 60MMSCFD Cryo Plant

DATE: 7/10/13
BY: SHP
P.O. #

CONE STRAINER

TAG NUMBER	SP-101B	SP-402	SP-601	SP-602					
LINE NUMBER	162-D1-LT-6"	164-D1-LT-8"	213-B1-CS-6"	213-B1-CS-6"					
P&ID SHEET	233	233	236	236					
SERVICE	EC-101	PCV-402B	P-601	P-602					
PIPE SIZE	6" XH	8" XH	6" Std.	6" Std.					
FLANGE RATING	600# RF	600# RF	300# RF	300# RF					
RING									
MATERIAL	304SS	304SS	304SS	304SS					
THICKNESS	0.125"	0.125"	0.125"	0.125"					
CONE									
MATERIAL	304SS	304SS	304SS	304SS					
% OPEN AREA	200%	150%	150%	150%					
LENGTH	11" Long	11" Long	8" Long	8" Long					
DIRECTION	Reverse Flow	Reverse Flow	Reverse Flow	Reverse Flow					
TYPE	Truncated Cone	Truncated Cone	Truncated Cone	Truncated Cone					
SCREEN									
MATERIAL	304SS	304SS	NA	NA					
MESH SIZE	60 Mesh	20 Mesh	NA	NA					
INSIDE / OUTSIDE	Outside	Outside	NA	NA					
	NOTE 1								
MANUFACTURER	Titan	Titan	Titan	Titan					
MODEL	PS16	PS16	PS16	PS16					

Note 1) Cross-braced on the inside for 20-25psi differential.

THOMAS RUSSELL CO.
Tulsa, Oklahoma

JOB NO.: J447
CLIENT: SPEC
SUBJECT: 60MMSCFD Cryo Plant

DATE: 7/10/13
BY: SHP
CHECKED:

**METHANOL INJECTION
SPRAY ASSEMBLIES**

TAG NO: SP-201B,206C,206D,202A,202B,101C,101D & 203

QTY: (8)

**STYLE REQUIRED:
PER NOTE-2:**

SP-201B	8" Style
SP-206C	6" Style
SP-206D	10" Style
SP-202A	6" Style
SP-202B	6" Style
SP-101C	6" Style
SP-101D	8" Style
SP-203	8" Style

**LENGTH REQUIRED
PER NOTE-1:**

SP-201B	5.0625"
SP-206C	4"
SP-206D	6.125"
SP-202A	4"
SP-202B	4"
SP-101C	4"
SP-101D	5.0625"
SP-203	5.0625"

MATERIAL REQUIRED:

SP-201B	Carbon Steel
SP-206C	Low Temp (See Note 1)
SP-206D	Stainless Steel(304)
SP-202A	Carbon Steel
SP-202B	Carbon Steel
SP-101C	Low Temp (See Note 1)
SP-101D	Low Temp (See Note 1)
SP-203	Low Temp (See Note 1)

Note-1) Low temp. material can be SA-105N or SA-350-LF2
Note-2) Reference HUR company spec ENG-14cap

THOMAS RUSSELL CO.

Tulsa, Oklahoma

SPRING HANGERS

JOB NO. J447
CLIENT: SPEC
SUBJECT: 60 MM Cryo Plant

DATE: 10/21/2013
BY: SHP

TAG NO: SH-442
DESCRIPTION: (1) Spring Can
MFR & MDL. NO: PHS Industries Series 910 Type B (Bolted Unit)
SIZE: 13
INSTALLED LOAD: 2977 lb
HOT LOAD: 3172 lb
MOVEMENT: 0.163 in DOWN
SPRING RATE: 1200 lb/in
LOAD VARIATION: 6%
FINISH: Galvanized with Neoprene coated spring
FURNISH WITH TRAVEL STOP YES

TYPE "F" SPRING CANS ONLY

INSTALLED HEIGHT: N/A
GUIDED LOAD COLUMN: N/A

Reference information

Line Number: Later
Lines Size (NPS): Later
Schedule: Later
Material: Later
Stress Report: Later

Remarks:

Furnish with the following accessories:

(1) Each PHS Industries Fig. 276 Forged weldless steel clevis 1" rod size with 1-1/8" bolt and nut (galvanized)

(1) Each PHS Industries Fig. 113 Welded beam attachment 1" rod size with 1-1/8" bolt and nut (galvanized)

(10) LF of 1" diameter all thread rod

THOMAS RUSSELL CO.
Tulsa, Oklahoma

SPRING HANGERS

JOB NO. J447
CLIENT: SPEC
SUBJECT: 60 MM Cryo Plant

DATE: 10/21/2013
BY: SHP

TAG NO: SH-443
DESCRIPTION: (1) Spring Can
MFR & MDL. NO: PHS Industries Series 910 Type B (Bolted Unit)
SIZE: 13
INSTALLED LOAD: 3218 lb
HOT LOAD: 3408 lb
MOVEMENT: 0.159 in DOWN
SPRING RATE: 1200 lb/in
LOAD VARIATION: 6%
FINISH: Galvanized with Neoprene coated spring
FURNISH WITH TRAVEL STOP YES

TYPE "F" SPRING CANS ONLY:

INSTALLED HEIGHT: N/A
GUIDED LOAD COLUMN: N/A

Reference information:

Line Number: Later
Line Size (NPS): Later
Schedule: Later
Material: Later
Stress Report: Later

Remarks:

Furnish with the following accessories:

(1) Each PHS Industries Fig. 276 Forged weldless steel clevis 1" rod size with 1-1/8" bolt and nut (galvanized)

(1) Each PHS Industries Fig. 113 Welded beam attachment 1" rod size with 1-1/8" bolt and nut (galvanized)

(10) LF of 1" diameter all thread rod