

TECHNICAL SPECIFICATIONS. (R.F.Q) TO SUPPLY

- 1- X-mass trees 3 1/8" x 5000.
- 2- Tubing spool – adapter – tubing hanger.(11" x 7 1/6") 5000 psi
- 3- Casing head 13 5/8 " x 3000 psi
- 4- Casing spool 13 5/8 ". x3000 psi x 11 " x 5000 psi.

Group/1/	1-X-mass tree 3 1/8" x 5000, ACC. TO API specification - 6A ('AA' Material CLASS, PSL-2, PR-2, TEMP CLASS-U) .Parveen or equivalent. every one consists of:			Qty= 10 set	
	item	Description	Unit	Qty	
	1	Gate valves 3 1/8" -5000 PSI WP, flanged end type RX-35 full bore through conduit , non-rising stem metal to metal seal between gate and seat and between seats and body hand wheel operated	PC	7	
	2	Studs with 1 nut Ø 1 1/8" × 7 1/4" ASTM A 193,G-B7M studs and ASTM A194 , G-2HM nuts cadmium or zinc plated (to connect valves with studed cross and adapter 7 1/16" X3 1/8")	PC	40	
	3	API Ring gasket RX-35 carbon steel, cadmium plated	PC	12	
	4	Studs with 2 nut Ø 1 1/8" × 7 1/4" ASTM A 193,G-B7M studs and ASTM A194 , G-2HM nuts cadmium or zinc plated (to connect valves to gather)	PC	56	
	5	Studded cross 3 1/8" -5000 psi W.P run 3 1/8" x5000 psi W.P outlets	PC	1	
	6	Tree cap flanged bottom 3 1/8" -5000 psi complete with hammer nut and plug thread 1/2" NPT female inside thread 3 1/2" NEW VAM lift thread	PC	1	
	7	Needle valve with angle 1/2" NPT male x 1/2" NPT female 5000 psi W.P, (with vent)	PC	2	
	8	3 1/8"x 5000 psi W.P companion flange x3" LP	PC	1	
	9	Bull plug 3" LP x 1/2" NPT tapped 5000 psi	PC	1	
	10	Adjustable choke 3 1/8" -5000psi WP flanged inlet x outlet with SSTC stem and seat easy , hand wheel operated	PC	2	
	11	Welding neck flange 3 1/8 -5000psi	PC	2	

Group/2/ Spare part for Group/1/	1-X-mass tree 3 1/8" x 5000 spare part, ACC. TO API specification - 6A ('AA' Material CLASS, PSL-2, PR-2, TEMP CLASS-U)				
	item	Description	Unit	Qty	
	1	Gate valves 3 1/8" -5000 PSI WP , flanged end type RX-35 full bore through conduit , non-rising stem metal to metal seal between gate and seat and between seats and body hand wheel operated	PC	15	
	2	Studs with 1 nut Ø 1 1/8" × 7 1/4" ASTM A 193,G-B7M studs and ASTM A194 , G-2HM nuts cadmium or zinc plated (to connect valves with studed cross and adapter 7 1/16" X3 1/8")	PC	60	
	3	API Ring gasket RX-35 carbon steel, cadmium plated	PC	40	
	4	Studs with 2 nut Ø 1 1/8" × 7 1/4" ASTM A 193,G-B7M studs and ASTM A194 , G-2HM nuts cadmium or zinc plated (to connect valves to gather)	PC	70	
	5	Studded cross 3 1/8" -5000 psi W.P run 3 1/8" x5000 psi W.P outlets	PC	2	
	6	Tree cap flanged bottom 3 1/8" -5000 psi complete with hammer nut and plug thread 1/2" NPT female inside thread 3 1/2" NEW VAM lift thread	PC	10	
	7	Needle valve with angle 1/2" NPT male x 1/2" NPT female 5000 psi W.P (with vent)	PC	10	
	8	3 1/8"x 5000 psi W.P companion flange x3" LP	PC	15	
	9	Bull plug 3" LP x 1/2" NPT tapped 5000 psi	PC	15	
	10	Adjustable choke 3 1/8" -5000psi WP flanged inlet x outlet with SSTC stem and seat easy , hand wheel operated	PC	5	
	11	Welding neck flange 3 1/8 -5000psi	PC	10	
	12	Set seal ASSY upper and lower for tubing hanger	set	10	

**2-Tubing spool – adapter – tubing hanger, (11" x 7 1/6") 5000 psi
ACC. TO API specification 6A
(AA' Material CLASS, PSL-2, PR-2, TEMP CLASS-U)
every one consists of:**

Qty = 10 SET

item	Description	Unit	Qty
1	Tubing spool 11"x5000psi W.P type RX-54 bottom flanged x 7 1/16" x5000psi W.P type RX -46 flanged top with two 2 1/16" x 5000psi W.P studded side out lets	PC	1
2	Gate valve 2 1/16" x5000psi W.P flanged end type RX-24 full bore through conduit non rising stem metal to metal seal Between gate and seat and between seats and body hand wheel operated	PC	4
3	Companion flange 2 1/16" x5000psi W.P type RX-24 x 2" LP	PC	2
4	Bull plug 2" L.P x 1/2" NPT female 5000 psi W.P	PC	2
5	Needle valve with angel 1/2" NPT male x female 5000psi W.P	PC	2
6	Pressure gauge (0-5000)psi W.P x 1/2" NPT male 4 1/2" O.D ST/STL case	PC	1
7	Ring gasket RX -24 cadmium plated	PC	6
8	Ring gasket RX -46 cadmium plated	PC	1
9	Ring gasket RX -54 cadmium plated	PC	1
10	Set of 8studs with two nuts 7/8" x 6" ASTM A193.G-B7M studs and ASTM A 194.G-2HM nuts cadmium or zing plated	Set	4
11	Set of 8studs with 1 nuts 7/8" x 6" ASTM A193.G-B7M studs and ASTM A 194.G-2HM nuts cadmium or zing plated	Set	2
12	Set of 12 Studs with 1 NUT Ø 1 3/8" x 10 3/4" ASTM A 193. BG-7M studs and ASTM A194, G-2HM nuts cadmium or zing plated(to connect tubing spool 11' x 7 1/16" with adapter 7 1/16" x 3 1/8")	Set	1
13	Set of 12 studs with two nuts 1 7/8"X 13.75" ASTM A193 .BG-7M studs and ASTM A194, G-2HM nuts cadmium or zinc plated (to connect tubing spool 11"x 7 1/16" with casing spool 135/8"x11")	Set	1
14	Tubing hanger with extended neck 7 1/16"x 5000psi W.P 3 1/2" NEW VAM left and suspension x3" BPV with one port 1/4"hydraulic control line , thread to be treated with anti-galling	PC	1
15	Tubing head adapter 7 1/16" x 5000psi W.P flanged bottom x3 1/8" x5000psi W.P flanged top prepare to above extended neck tubing hanger and which down hole control line inside thread top & down 3 1/2" NEW VAM	PC	1
16	Set seal ASSY upper and lower for tubing hanger	set	1

Group/4/	3- Casing head 13 5/8 " . x 5000 psi, ACC. TO API specification - 6A ('AA' Material CLASS, PSL-2, PR-2, TEMP CLASS-U) every one consists of:		Qty = 2 SET	
	item	Description	Unit	Qty
	1	Casing head 13 5/8" x 3000 psi w.p flanged top 13 3/8" type R-57 Slip-on welded bottom, with two 2" L.p threaded side outlets	PC	1
	2	Slip and seal casing hanger manual 13 5/8" x 9 5/8".	PC	1
	3	Secondary seal casing 13 5/8" x 9 5/8"	PC	1
	4	Bull plug 2" L.p x 1/2" NPT tapped end 3000 psi w.p	PC	1
	5	Nipple 2" L.p x 6" approx. long *3000 psi w.p	PC	1
	6	Gate valve 2 1/16" 3000 psi w.p. L.p. screwed ends, full bore through conduit, non-rising stem metal-to-metal seal (without any rubber seal) between gate and seat. Stem seal can be replaced under pressure. Hand-wheel operated overlay welding ring grooves.	PC	1
	7	Needle valve 1/2" NPT male x female, Straight type 3000 psi w.p.	PC	1
	8	Pressure gauge (0-3000) w.p. 1/2" NPT male 4 1/2" O.D. face ST/STL case.	PC	1
	9	Ring gasket API R-57 cadmium plated.	PC	1
	10	Set of 20 studs with two nuts: 1 3/8" x 10.25" ASTM A193 GR-B7M studs and ASTM A194 GR-2HM nuts, cadmium or zinc plated.	Set	2

Group/5/	4- Casing spool 13 5/8 " . x 11 " x 5000 psi, ACC. TO API specification - 6A ('AA' Material CLASS, PSL-2, PR-2, TEMP CLASS-U) every one consists of:		Qty = 2 SET	
	item	Description	Unit	Qty
	1	Casing spool: 13 5/8" 3000 psi w.p flanged bottom type R-57 x 11" 5000 psi w.p flanged top RX-54 with two 2 1/16" API 3000 psi w.p studed side outlets.	PC	1
	2	Slip and seal casing hanger manual 11" x 7"	PC	1
	3	Secondary seal 11" x 7"	PC	1
	4	Gate valve 2 1/16" 5000 psi w.p L. p flanged ends type RX-24, full bore through conduit, non-rising stem without any rubber seal, metal-to-metal seal between gate and seat, and between seats and body. Stem seal can be replaced under pressure. Overlay welding ring grooves. Hand wheel operated.	PC	4
	5	2 1/16" companion flange x2" L.p 5000 psi w.p type RX-24 overlay welding ring grooves	PC	2
	6	Bull plug 2" L.P x blind 5000 psi w.p	PC	1
	7	Bull plug 2" LP x 1/2" N.P.T female 5000 psi w.p	PC	1
	8	Needle valve 1/2" NPT male x female, Straight type 5000 psi w/p	PC	1
	9	Pressure gauge (0-5000) psi 1/2" NPT male 4 1/2" O.D ST/STL case	PC	1
	10	Ring gasket RX-24 cadmium plated	PC	8
	11	Ring gasket RX-54 cadmium plated	PC	1
	12	Set of 8 studs with two nuts 7/8"X6" ASTM A193 GR-B7M studs and ASTM A 194 GR-2H M nuts cadmium or zinc plated.	PC	6
	13	Set of 12 studs with two nuts: 1 7/8" x 14 1/2" ASTM A193, GR-B7M studs and ASTM A194, GR-2HM nuts, cadmium or zinc plated.	PC	2

Technical requirements:

- 1- Provide original catalogues
- 2- Manufacturer and country of origin
- 3- Technical data sheet should be enclosed with the materials
- 4- valid API 6A standard for items certificate should be enclosed with the shipment and with offer.
- 5- The offer should be enclosed with ISO certificate
- 7- The materials must be new (unused and not renewed)
- 8- All material specification should be as Following: ('AA' Material CLASS, PSL-1, PR-2, TEMP CLASS-U.)

A SCOPE OF WORK

The Work to be performed under the terms of this Agreement shall be the provision by Contractor of X-Tree equipment, materials, personnel and full onshore technical back up facilities as and when requested by HPC.

Contractor shall supply ten sets of 5000 psi W.P. X-mass tree with spear parts & well head as R.F.Q.

The Work will include, but not be limited to:

- i) all, supervision, materials, supplies, equipment, transportation, and all other items necessary to perform the Work, except where specifically mentioned to be provided by HPC;
- ii) provision of procedural input and technical guidance as required for the X-mass tree related element;
- iii) provision of accurate Job Reports detailing all aspects of the operations relevant to the installation and use of Contractor's equipment.

C TECHNICAL EVALUATION

Only complete offer comprising X-tree, Service Tools and Spare Parts shall be taken into consideration during technical evaluation. Partial offers shall be rejected

D WELLHEAD SYSTEM DESCRIPTION

A complete description of the X-tree system with all components, including a full stack-up drawing and technical manual for handling, installing and maintenance shall be included with the proposal.

E DESIGN REQUIREMENTS

General

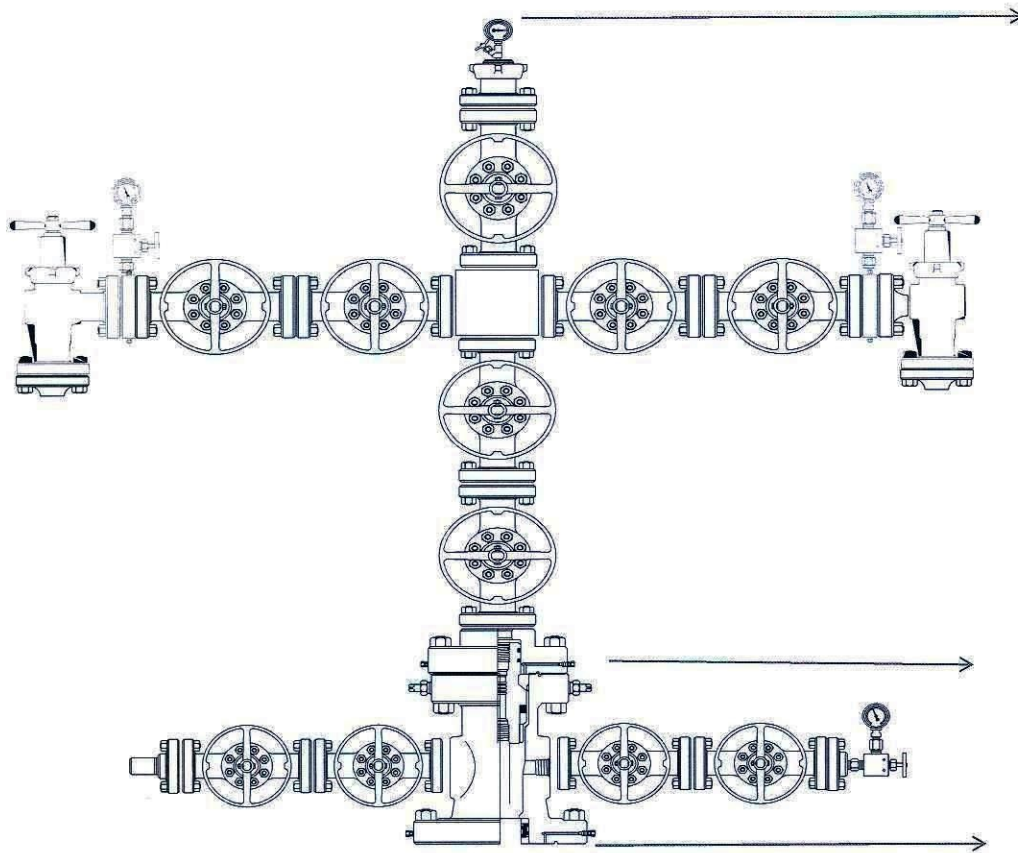
- 1- The equipment shall be of minimum size and weight consistent with safety but efficiently meeting the design operating and maintenance requirements.
- 2- The design life of all components in this specification shall be no less than 15 years.
- 3- The threaded components in the X-tree system shall not allow damage to occur to non-threaded components.
- 4- The method by which components are locked together shall be carefully considered.

Packing

1. Contractor is responsible for packing the X-tree components in a safe and clean condition such that all parts can be shipped by road and sea, without damage or deterioration.
2. Complete each Section of every one X-tree shall be packed separately.
3. All threaded components shall have a rigid steel protector suitable designed and sized to give total protection from impact.
4. Tubing head adapter and X-mas Tree to be attached a third party tested on nominal pressure.

K TECHNICAL SUPPORT

Contractor shall provide relevant onshore technical support, which will include a technical specialist available to HPC for discussion of operational and technical problems



REMARKS
