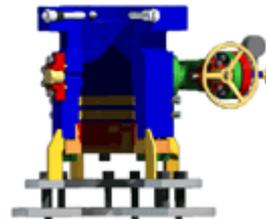




Wellhead & XMAS Trees



V-FLO PUMPS & SYSTEMS

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WELLHEAD EQUIPMENT & CHRISTMAS TREE



JMP manufacture wellhead equipment which consist of casing head, tubing head, Christmas tree and tools .It is mainly used to control well pressure and adjust flow rate of oil/gas well.

There are two typical case of wellhead and Christmas tree showed in the map.

It is available for controlling wellhead pressure during acid fracturing, water injection and well test.

It is available for all kinds of casing program.

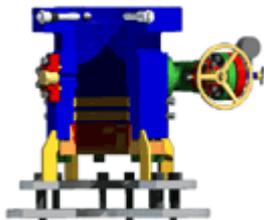


Casing Head

House of casing head is made of low alloy steel meeting API 6A requirement.

Casing head is an important equipment to control wellhead pressure during drilling operation.

Side outlet have VR thread.



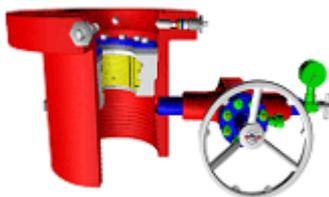
Casing Head -Slip Bottom Connection

Casing head with slip bottom can be installed conveniently . Installation process will not be affect by climate or environment as welded bottom type casing head.

Decrease labor force and qualification requirement for the operational personnel.

Fast in installation ,usually 30 to 50 minute sufficient ,improve efficient for almost ten times ,and will greatly reduce the drilling time .

Casing hanger has good repeatability and is simply retrieved .After cleaning and replacing of the seal ring and little repair the casing head can be re-used and is prefer for exploring.

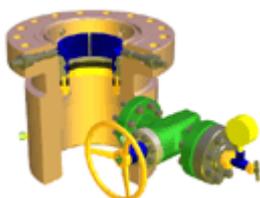


Casing Head - Threaded Bottom Connection

Casing head with threaded bottom are easily installed on surface casing.

Thread of bottom can be API round thread or buttress thread.

House of casing head is made of low alloy steel meeting API 6A requirement . (for example, AISI 4130)



Casing Head- Welded Bottom Connection

The material of casing head with "SOW" bottom has good quality to be welded.

Position that be welded on can be tested by pumping grease to working pressure with plastic injection gun.

WELLHEAD EQUIPMENT & CHRISTMAS TREE

Casing Spool

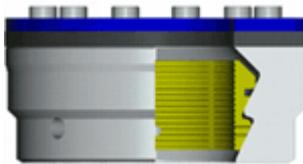
- Casing head spool is made of low alloy steel or stainless steel that meet API spec.6A.
- There are two secondary seal groove in the bottom .Two hydrostatic testing hole can examine seal performance.

Normal size of Top flange (in)	11", 13-5/8", 7"
Working Pressure of Top Flange (psi)	2M, 3M, 5M, 10M, 15M
Normal size of Bottom flange (in)	11", 13-5/8", 20-3/4", 21-1/4"
Working Pressure of Bottom Flange (psi)	2M, 3M, 5M, 10M
Side Outlet Normal Size(in)	2-1/16", 2-9/16"



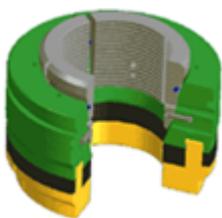
WD-Type Casing Hanger

- WD-type casing hanger with the feature of easy installation and reliable operation is used for connecting casing head and surface casing by tightening casing with help of external force
- It can connect 20", 13-3/8", 9-5/8" surface casing pipe.



WE-Type Casing Hanger

- WE-type casing hanger consists of slips, slip bowl and seal rings, are furnished with manual seal unit.
- WE-type casing hanger have the feature of high load -suspending capacity ,reliable seal . It also can be applicable for light casing load, shallow and low pressure services.
- It can hang 13-5/8", 9-5/8", 10-3/4", 7", 5-1/2".
- Fit all JMP casing head and spool.
- Slip with two taper surface will not collapse casing even at high casing loads.



W-Type Casing Hanger

- Seal of hanger is made of nitrile rubber. Bowl, slip and supporter are made of low alloy steel meeting API 6A requirement.
- The pack off automatically seals the casing annulus as the casing load being suspended. So it is self -energized seal unit.
- Single taper surface casing hanger.
- Split, segmented hanger provides an automatic annulus seal.
- Fits all JMP casing head and spools.
- It can hang 13-5/8", 9-5/8", 10-3/4", 7", 5-1/2".

Casing Head Tools



Wear bushing running / retrieving tool



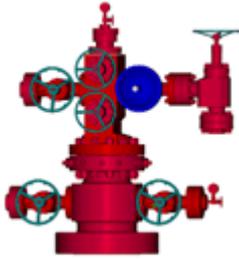
Wear bushing



Hydrostatic testing plug

WELLHEAD EQUIPMENT & CHRISTMAS TREE

X-tree & Tubing Head



Typical case of tubing head & Christmas tree manufactured by JMP can meet the requirement of sour corrosive service.

Taper tubing hanger and straight tubing hanger can be available for tubing spool.

Metal to metal or elastomer seal can be available for tubing hanger.

Christmas-tree is mainly used for producing well to control flow of oil & gas well.

Tubing head is mainly used for hanging different size tubing and shape the annulus space.

Working Pressure	2M, 3M, 5M, 10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Working temperature	L, P, R, S, T, U, V
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1, PR2
Main nominal size (in)	2-1/16, 2-9/16, 3-1/16(3-1/8), 4-1/16
Side nominal size (in)	2-1/16, 2-9/16, 3-1/16(3-1/8), 4-1/16

The manufacture the composite solid block valve with forged, integral steel bodies.

X-tree assembled with block valve, often is used in offshore for it has a lower volume and good strength

Solid block valve have all the feature of the JMP gate valve.

Option: porting for SCSSV control lines, chemical injection, nitrogen injection for test pressure of well bottom, annulus SCSSV control line , electric cable.

Tubing Spool

Tubing head spool is made of low alloy steel or stainless steel that meet API spec.6A.

There are two secondary seal groove in the bottom . Two hydrostatic testing hole at the bottom of tubing head can examine seal performance.

Normal size of Top flange (in)	11", 7-1/16"
Working Pressure of Top Flange (psi)	2M, 3M, 5M, 10M, 15M
Normal size of Bottom flange (in)	7-1/16" , 11", 13-5/8"
Working Pressure of Bottom Flange (psi)	2M, 3M, 5M, 10M
Side Outlet Normal Size (in)	2-1/16", 2-9/16"



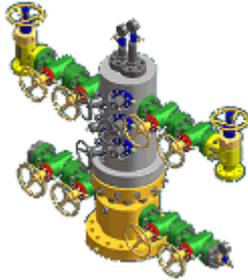
Tubing Hanger

Extend neck tubing hanger has several option hole available for electric cable, SCSSV control lines, chemical reagent injection, capillary hole.

Extend neck tubing has lift thread and BPV thread.

WELLHEAD EQUIPMENT & CHRISTMAS TREE

Dual Completion Wellhead Equipment

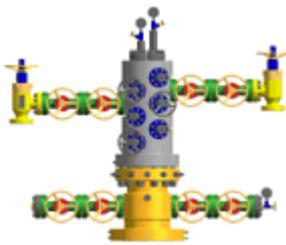


Dual completion wellhead equipment is made of material meeting API Spec 6A.

The Dual Split Hanger allow each string to be run or pulled independently, yet provide maximum clearance for running gas lift valve or subsurface safety valves.

Dual Split Hanger can be fitted with connection for 1/4 inch control line of subsurface control valves. The Dual seal bore adapter is modified with hydraulic supply inlet ports.

Option: porting for SCSSV control lines, chemical injection, nitrogen injection for test pressure of well bottom, annual SCSSV control lines.



Working Pressure (psi)	5M, 10M
Material Class	AA, BB, CC, DD, EE, FF
Working temperature	L, P, R, S, T, U, V
Product Specification Level	PSL2, PSL3, PSL4
Performance Requirement level	PR1, PR2
Main nominal size (in)	2-1/16, 2-9/16, 3-1/16(3-1/8)
Side nominal size (in)	2-1/16, 2-9/16, 3-1/16(3-1/8)

Unique Wellhead

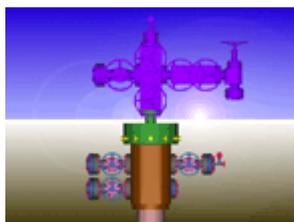


Quickly diverter connector on top of the casing head facilitates installation and removal of the diverter.

wellhead system casing is a high -capacity, mandrel -type hanger which is rated to the full joint strength of the suspended casing.

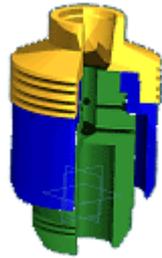
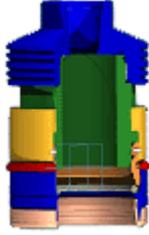
Metal to metal casing hanger seal sub-assembly can be replaced and repaired. Resilient lockdown ring is used to make up reliable connection between house and seal sub-assembly.

Tubing head adapter apply fast clamp to reduce time of installation and a lower make up torque is obtained .



Working Pressure (psi)	5M, 10M
Material Class	AA, BB, CC, DD, EE, FF
Working temperature	L, P, R, S, T, U, V
Product Specification Level	PSL2, PSL3, PSL4
Performance Requirement level	PR1, PR2
Typical case of Casing & Tubing program	20" x13-3/8" x9-5/8"x3-1/2EUE"
Main Normal Size of Christmas tree (in)	2-1/16, 2-9/16, 3-1/16(3-1/8)

WELLHEAD EQUIPMENT & CHRISTMAS TREE



Unique Wellhead Tools

Wash tool is used to clean seal area of unique wellhead house.

Running tools is used to send metal seal assembly of casing hanger to the position.

Retrieve tools is used to get the metal seal assembly of casing hanger out when seal's performance is not in good condition.



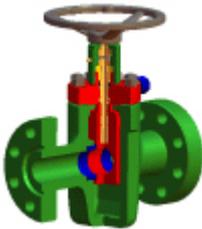
Multi-bowl Wellhead

Procedure of Multi-bowl wellhead is same as the Unique wellhead.

When casing pipe was stuck in the procedure of running casing pipe ,upper house can be remove in order that procedure of installing emergency slip casing hanger do not need any inner cutting tools

VALVE

Non-rising Stem Gate Valve



Valve body ,bonnet is made of low alloy steel or stainless steel. Seal surfaces of gate and seat are made of tungsten carbide .

JMP PFFA Series casting body gate valve available in working pressure from 2000 to 5,000psi and forging body gate valve available in working pressure from 10000 to 15000psi, Main nominal size from 1-13/16" to 4-1/16".

Feature and Benefits:metal to metal seat /gate seal,metal to metal stem backseat,metal to metal body/bonnet assembly

Working Pressure (psi)	2M, 3M, 5M, 10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16

Rising Stem Gate Valve



Valve body ,bonnet is made of low alloy steel or stainless steel . Seal surfaces of gate and seat are made of tungsten carbide .

JMP PFF Series gate valve is available in working pressure from 10,000 to 20,000psi and main nominal size from 1-13/16" to 4-1/16" Balanced stem valve is for high pressure service . The use of second stem balances out the body pressure acting against a single stem.this eliminates the thrust load carried by the bearing.

Feature and Benefits: metal to metal seat /gate seal,metal to metal stem backseat seal metal to metal body/ bonnet seal

Working Pressure (psi)	10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,3-1/16,3-1/8,4-1/16

VALVE



Hydraulic Gate Valve

Hydraulic Gate valve can be operated remotely .

JMP PFFY Series hydraulic gate valve is available in working pressure from 5,000 to 20,000psi and main nominal size from 1-13/16" to 4-1/16".

Feature of hydraulic gate valve is as same as gate valve .

Working Pressure (psi)	5M, 10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16



Expanding Gate Valve

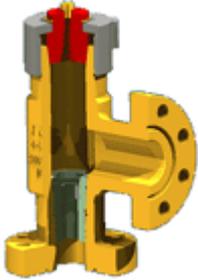
Platic/chevron packing stays clean and free from contaminants to reduce maintenance costs.

Tight mechancial seal is assured with parallel expanding gate design .this design provide simultaneous upstream and down steam sealing which is not affected by pressure fluctuation and vibration.

A double row roller thrust bearing on the stem makes operation easy ,even under full pressure.

Working Pressure (psi)	2M, 3M, 5M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16

VALVE

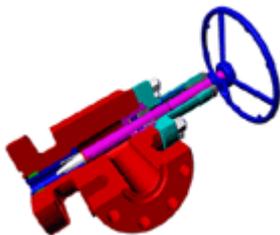


Positive Chokes

Positive choke valve is available in working pressure from 2,000 to 20,000psi and flange size from 1-13/16" to 4-1/16" and maximum orifice size from 1" to 3"

Bean of choke and seat are made of tungsten carbide or ceramics, so it has feature of abrasion resistance ,wash resistance and reliable serviceability.

Working Pressure (psi)	2M, 3M, 5M, 10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16



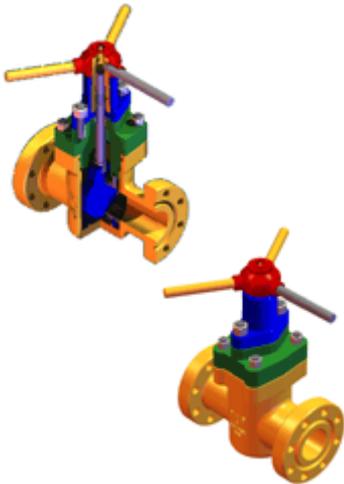
Adjustable Chokes

JMP JLK Series choke valve is available in working pressure from 2,000 to 20,000psi and flange size from 1-13/16" to 4-1/16" and orifice size from 1" to 3";iChoke valve with conical needle are used for Christmas Tree.

Conical choke needle and seat are made of tungsten carbide, so it has feature of abrasion resistance ,wash resistance and reliable serviceability

Working Pressure (psi)	2M, 3M, 5M, 10M, 15M, 20M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16

VALVE



Check Valve

Valve body ,bonnet ,gate and stem is made of low alloy steel or stainless steel, valve.seat is made of Nitrile rubber.

JMP NFF Series gate valve is available in working pressure from 2,000 to 5,000psi and flange size from 2" to 4" .

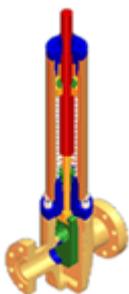
Mud valve can be applied in the mud circulating pipe line .

End connections:flanged ,threaded and union.

Replacement and repair of valve core is conveniently .

Valve volume and weight is less than other gate valve.

Working Pressure (psi)	2M, 3M, 5M
Main nominal size (in)	2, 3, 4, 5



Hydraulic Safe Valve

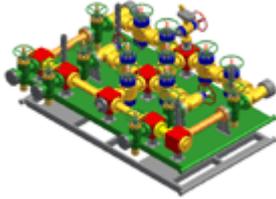
Surface safety valve can be used in Christmas tree master and wing valve ,shutdown valves, and pipeline control valves.

Hydraulic safe valve is a terminal performance mechanism in well safety system .

Safety valve can be closed automatically when danger signal is sent to safe system.

Working Pressure (psi)	2M, 3M, 5M, 10M
Material Class	AA, BB, CC, DD, EE, FF
Product Specification Level	PSL1, PSL2, PSL3, PSL4
Performance Requirement level	PR1,PR2
Main nominal size (in)	1-13/16,2-1/16,2-9/16,3-1/16,3-1/8,4-1/16

CHOKE & KILL MANIFOLD



Choke Manifolds

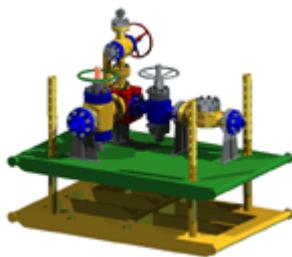
Choke manifold that meets the requirement of API Spec.16c. is used for adjusting the different mud density in the well to keep the pressure balance .

The choke &kill manifold complete with BOP stack is a main equipment to control well blowout and well oil/gas pressure.

complete with hydraulic control console to achieve the function of remote control .

JMP choke manifold are made up of field proven manual and /or hydraulic gate valve and choke , pressure transmitters, pressure gauge crosses etc.

Working Pressure (PSI)	2M, 3M, 5M, 10M, 15M
Main nominal size (IN)	2-1/16,2-9/16, 3-1/8(3-1/16), 4-1/16



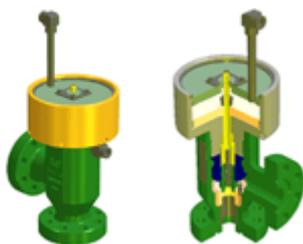
Kill Manifold

Kill manifold meets the requirement of API Spec.16c.

It is a main equipment to control well blowout .

Kill manifold are made up of manual and /or hydraulic gate valves, check valve crosses or tees or five -way cross.

Working Pressure (PSI)	2M, 3M, 5M, 10M, 15M
Main nominal size (IN)	2-1/16,2-9/16, 3-1/8(3-1/16), 4-1/16



Hydraulic Drilling Choke

Cylindrical gate and seat are made of tungsten carbide. It have the feature of abrasion resistance, wash resistance and reliable service ability.

JMP JLKY Series drilling choke is available in working pressure from 2,000 to 15,000psi and flange size from 2-1/16" to 4-1/16" and orifice size from 2" to 3".

Hydraulic drilling choke is suitable for H2Sand CO2 work condition.

Cylindrical gate and seat can be replaced or reversed without removing choke from manifold.

Working Pressure (PSI)	2M, 3M, 5M, 10M, 15M
Main nominal size (IN)	2-1/16,2-9/16,3-1/8(3-1/16), 4-1/16

CHOKES & KILL MANIFOLD



Manual Drilling Choke

JMP JLKB Series manual drilling choke valve is available in working pressure from 10,000 to 20,000psi and flange size from 1-13/16" to 4-1/16" and orifice size from 1" to 3". Cylindrical gate and seat are made of tungsten carbide. It has the feature of abrasion resistance, wash resistance and reliable service ability.

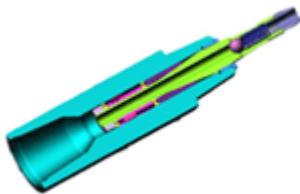
Working Pressure (PSI)	2M, 3M, 5M, 10M, 15M
Main nominal size (IN)	2-1/16, 2-9/16, 3-1/8(3-1/16), 4-1/16

Mud-Gas Separator

Completed with choke manifold.

It can separate the gas in the mud replaced from choke & kill manifold.

It can automatically separate gas and mud, as well as recovery mud on the basis of settling principle.



Drop-in Type Retaining Valve

It is a tool to prevent well kick.

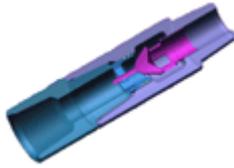
Landing connections can supply suitable connectors for drill pipe.

Slip body provides firm and reliable lock feature.

Applicable for any size of ID of drill pipe string.

Specification	FT168/35-NC50	FT127/35-NC38
OD of landing connections(mm)	168	127
Thread type of landing connections (mm)	NC50(410x411)	NC50(310x311)
OD of retaining valve(mm)	68.2	51.5
ID of retaining valve (mm)	28.5	19
ID of drill pipe string (mm)	69.8	54
ID of lock ring(mm)	65.8	59.1

CASING PIPE & TUBING PIPE



Arrow Type Retaining Valve

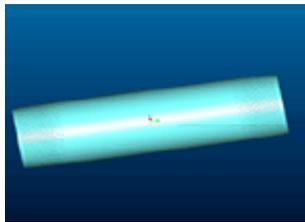
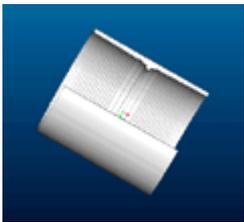
Outside of the valve is flow line design to integrate with connections.

The metal to metal seal is available for seat and valve chip. Which is made of high - quality stainless steel with the feature of acid resistance and heat resistance.

The seal surface of seat is flare shape to avoid washing and wearing from drill circulating liquid .Which can prolong valves' service life.

The chip of valve is arrow flow line style to reduce resistance of drill circulating liquid.

Specification	OD(mm)	Mini Bore(mm)	Connecting threads
FJ121/35-NC38	121	59	NC38(310x311)
FJ127/35-NC38	127	59	NC38(310x311)
FJ162/35-NC50	162	85	NC50(410x411)
FJ168/35-NC50	168	76	NC50(410x411)



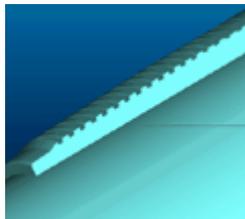
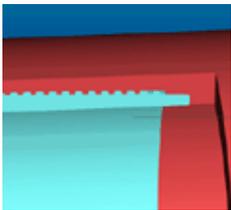
Casing Pipe & Tubing Pipe

Products include pup-joint , connector , coupling.

Material of products is alloy steel meeting API 5 CT standard's requirement .

Connection thread for pup-joint, connector, coupling can be API thread or TM thread.

apan sumitomo metal co .Ltd provide machining technology of TM thread.



Pup-joint & Pin TM-joint

TM-joint is a highly versatile T&C connection providing gas-tight sealing in medium to deep tubing and casing application.

TM technology feature: Highly corrosive environments. Deviated and horizontal wells. High pressure. High temperature . Deep Wells.



Coupling & Box TM-joint

TM metal to metal seal. Excellent gas-tight sealing.

Torque shoulder provides a positive torque stop which allows for accurate power tight makeup and minimizes hoop stresses in the connection.

Improved buttress thread.



API 6A certificate



API 5CT certificate



API 16C certificate



ISO9001 certificate