

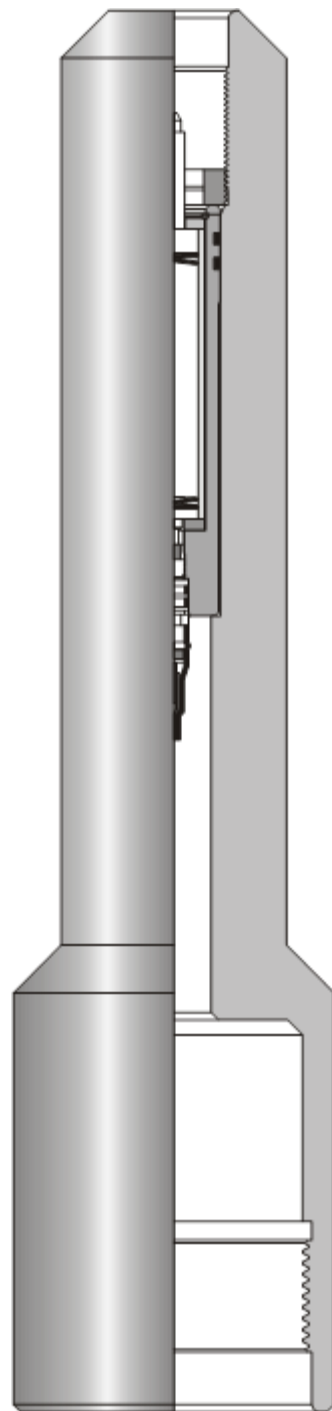
## Conversion Device

### Description

The Conversion device is used in CCL works to change the single tip jack into seven tip jacks.

### Specification

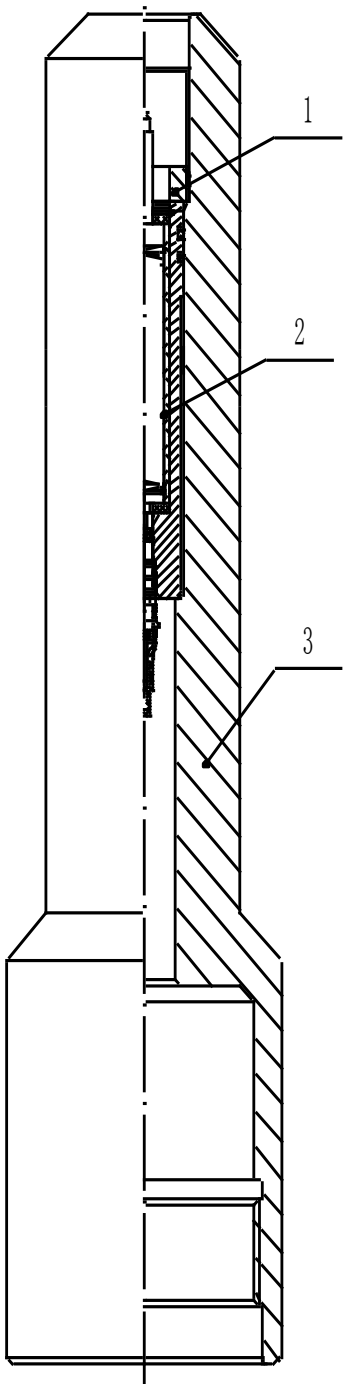
Code	DLY1-1	
Conn. thread	Upper end	1 1/8-12UNF(B)
	Lower end	2 7/8-10UN(B)
O.D.	φ86mm	3.39"
Make-up length	375mm	14.76"
Pressure rating	70MPa	10,000psi
Max. safe weights	20920kg	46, 000lb





## Conversion Device (2)

### Specification (2)



Item	Description	Qty
1	Plug screw	1
2	crossover coupling	1
3	Case body	1



## 100TGP11 Conventional Gas Lift Valve

### Description

Gas lift valve is designed to lift oil, operated by casing pressure. The valve can be run in by tubing.

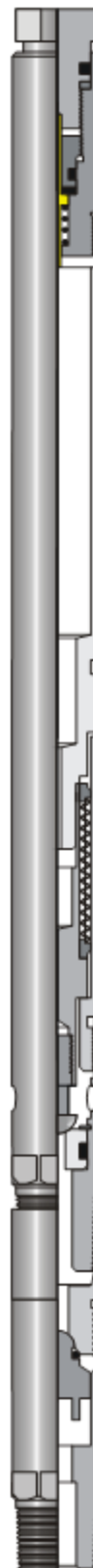
### Benefits/Capabilities

- Casing bodies are made of anticorrosive Cr-Ni steel;
- The bellows are made of Ni-Cu steel.
- Limit mechanism can protect bellows.
- Carbide tungsten Steel ball.

### Specifications

#### Bellows specifications

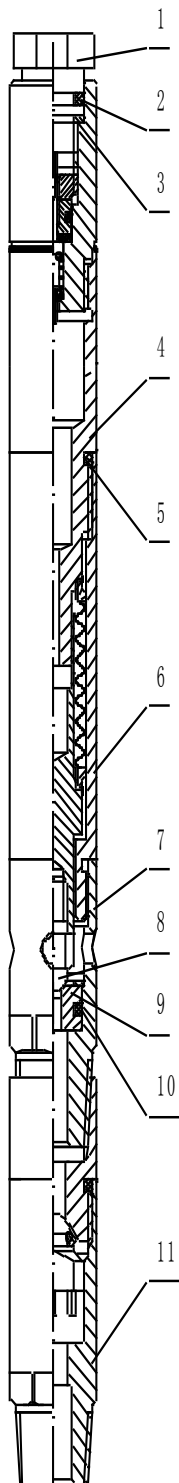
Bellows		Valve hole (mm)	Area of valve hole $A_p$ (mm <sup>2</sup> )	$A_p/A_b$	$1-(A_p/A_b)$	T.E.F
O.D.	Effect area $A_b$ (mm <sup>2</sup> )					
φ19	200	φ3.2	12.566	0.063	0.937	0.067
		φ4.7	19.244	0.096	0.904	0.106
		φ6.4	32.170	0.161	0.839	0.192
		φ7.1	39.592	0.198	0.802	0.247
Conn. Thread		NPT 1/2				
Dimension		Φ25.4×425				





## 100TGP11 Conventional Gas Lift Valve (2)

### Specifications (2)



Item	Description	Qty
1	Trail Plug	1
2	O-ring	1
3	Seal packing	1
4	Bellows Module	1
5	O-ring	1
6	middle valve body	1
7	bottom valve body	1
8	Valve ball	1
9	Valve Seat	1
10	O-ring	1
11	Check valve	1



## 100WGP11 Wireline Retrievable Gas Lift Valve

### Description

Retrieval Gas lift Valve is designed to lift oil, operated by casing pressure. The valve can run in by steel wire.

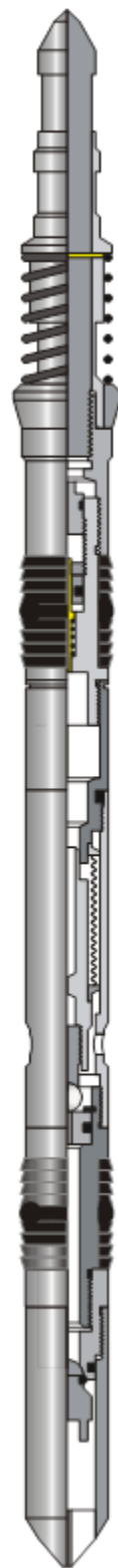
### Benefits/Capabilities

- Casing bodies are made of anticorrosive Cr-Ni steel,.
- The bellows are made of Ni-Cu steel.
- Limit mechanism can protect bellows.
- Carbide tungsten steel ball

### Specifications

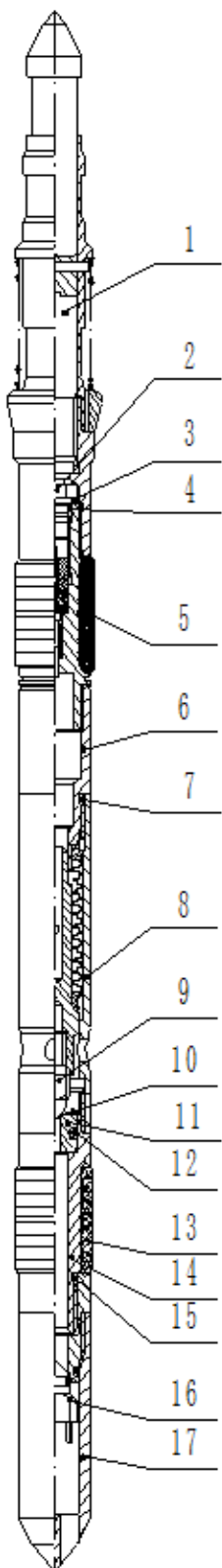
#### Bellows specifications

Bellows		Valve hole (mm)	Area of valve hole $A_p$ (mm <sup>2</sup> )	$A_p/A_b$	$1-(A_p/A_b)$	T.E.F
O.D.	Effect area $A_b$ (mm <sup>2</sup> )					
φ19	200	φ4.7	19.244	0.096	0.904	0.106
		φ6.4	32.170	0.161	0.839	0.192
		φ7.1	39.592	0.198	0.802	0.247





## 100WGP11 Wireline Retrievable Gas Lift Valve (2)



<b>O.D</b>		φ25.4mm	1"
<b>Make-up Length</b>		480mm	18.90"
<b>Bellows availability area</b>		200mm <sup>2</sup>	3.28in <sup>2</sup>
<b>Flow area of valve seat</b>		φ3.2mm、φ4.7mm φ6.4mm、φ7.1mm	0.13"、0.19" 0.26"、0.28"
<b>Diameter of valve ball</b>		φ7mm、φ9mm	0.276"、0.354"
<b>Diameter of seal packing</b>		φ26.4mm	1.04"
<b>Fishing head</b>	<b>Length of fishing head</b>	169mm	6.65"
	<b>Max. diameter</b>	φ34.5mm	1.36"
	<b>Diameter of fishing head</b>	φ19mm	0.75"
	<b>Diameter of fishing neck</b>	φ22.2mm	0.87"

Item	Description	Qty
1	Fishing head assembly	1
2	Trail plug	1
3	Seal packing	1
4	O- ring	1
5	O- ring	2
6	Bellow module	1
7	O- ring	1
8	Middle valve body	16
9	Valve ball	1
10	Back up ring	1
11	Valve seat	1
12	O- ring	1
13	'V' ring	16
14	Lower valve body	1
15	O- ring	1
16	Check valve	1
17	Check valve body	1



## 288A1-D2347-S7055 Side Pocket Mandrels

### Description

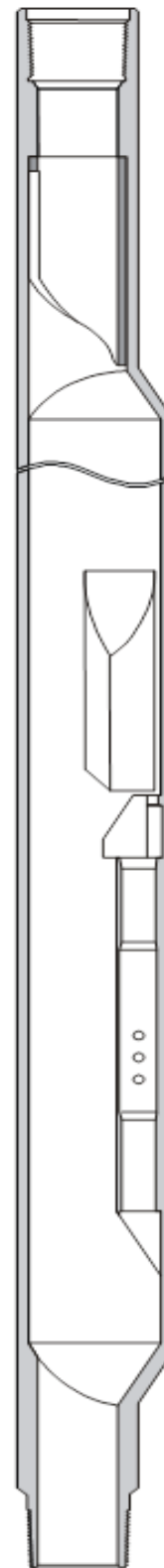
288A1-D2347-S7055 Side Pocket mandrel is designed to install 100WGP11 Retrievable Gas lift valve, so can lift oil.

### Benefits/Capabilities

- Round section, monolithic bursa.
- All parts are made of Cr-Mo alloy steel.

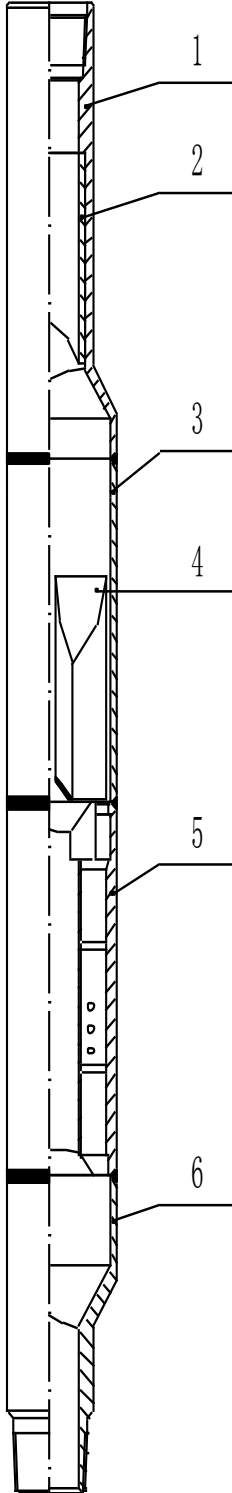
### Specifications

<b>Part number</b>	288A1-D2347-S7055	
<b>O.D.</b>	φ118.6mm	4.67"
<b>Make-up length</b>	1, 911mm	75.24"
<b>Min. testing pressure</b>	48.29MPa (inner)	7, 002psi (inner)
	37.92MPa (outer)	5, 498psi (outer)
<b>Min. diameter</b>	φ62 mm	2.44"
<b>Bursa diameter</b>	φ25.4mm	1"
<b>Tensile strength</b>	>P-110	





## 288A1-D2347-S7055 Side Pocket Mandrels (2)



Item	Description	Qty
1	Upper sub	1
2	Guiding sleeve	1
3	Connect tube	1
4	Wiper block	1
5	Case body	1
6	Lower sub	1



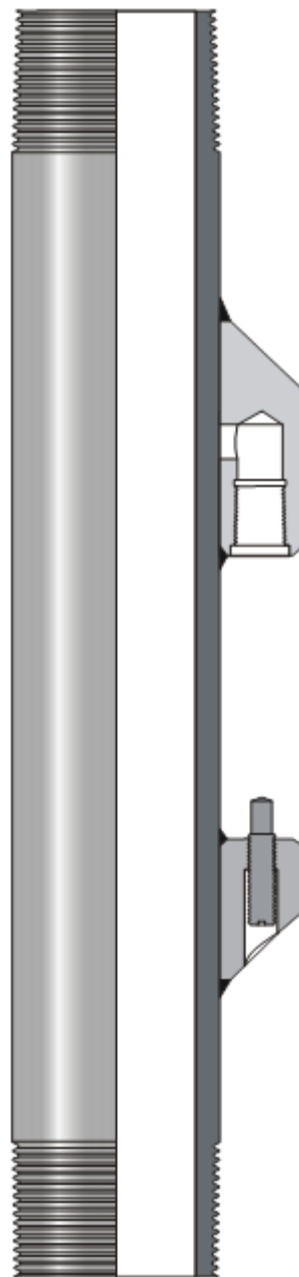
## Conventional Gas Lift Mandrels

### Description

Tubing Retrievable Gas Lift Mandrels is designed to install Tubing Retrievable Gas Lift in gas lift operation.

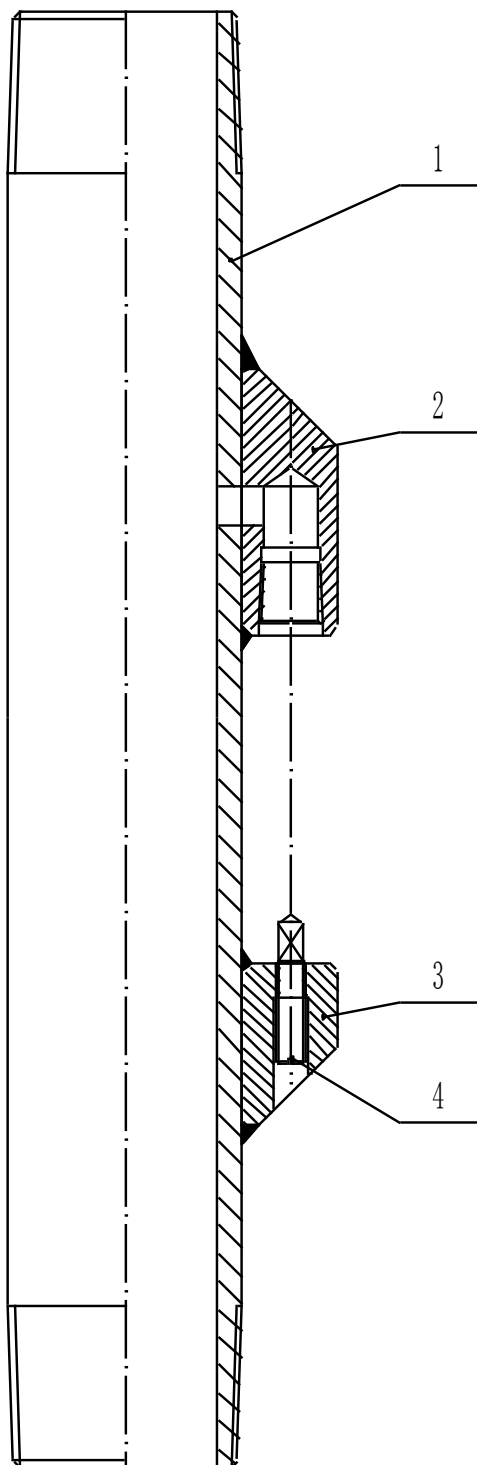
### Specifications

<b>O.D.</b>	φ114mm	4.49"
<b>Make-up length</b>	840mm	33.01"
<b>Pressure rating</b>	25MPa	3,625psi
<b>Min. diameter</b>	φ62mm	2.44"
<b>Valve dimension</b>	φ25.4×425	1"×16.7"
<b>Tensile strength</b>	47, 000kgf	103, 615lbf





## Conventional Gas Lift Mandrels (2)



Item	Description	qty
1	Fix tube	1
2	Upper fix socket	1
3	Lower fix socket	1
4	Screw	1

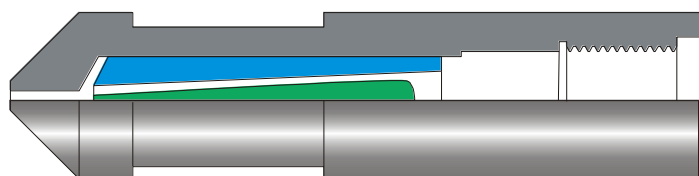


## Operating Tools for Gas Lift Valve

### Description

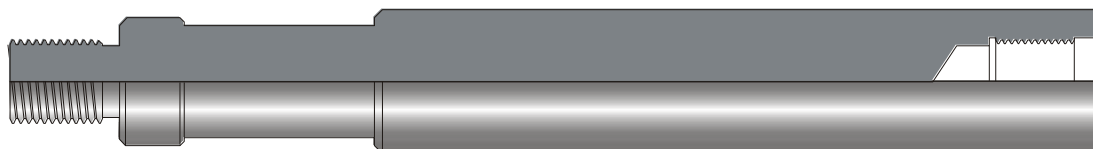
This includes components such as wire head, weight bar, mechanical jar, gimbal, and slanting/connection/planting tool.

1. Wire Head (SM-1) is designed to connect wire and other tools.



O.D.	Length	Dimension of fishing neck	Conn. thread
φ35mm	142mm	φ35mm	M24×3

2. Weight Bar (JZG) is designed to Increase weight of tool string.



O.D.	Length	Dimension of fishing neck	Conn. thread
φ38mm	1520mm	15.5kg	M24×3
φ38mm	900mm	7.5kg	M24×3



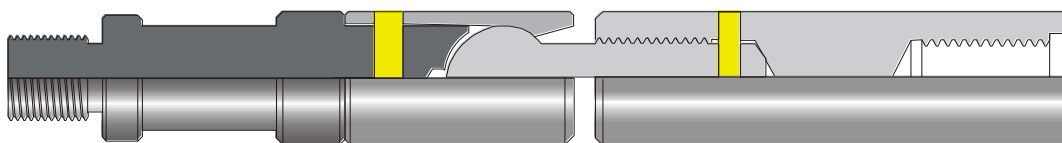
## Operating Tools for Gas Lift Valve (2)

3. Mechanical Jar (HgMp-13) is designed to supply impact energy.



O.D.	Weighted	Stroke	Dimension of fishing neck	Conn. thread
φ38mm	15.5kg	500mm	φ35mm	M24×3

4. Gimbal (WX-1) can connect tool string in flexible mode.

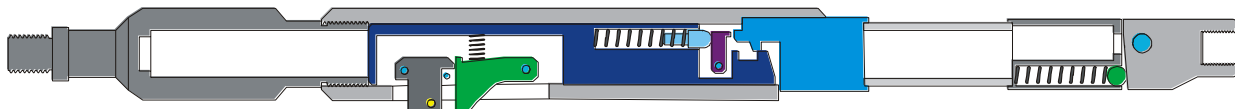


O.D.	Length	Angle	Dimension of fishing neck	Conn. thread
φ38mm	294mm	30°	φ35mm	M24×3



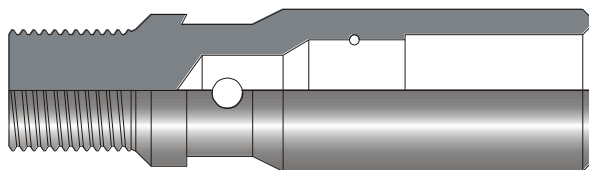
## Operating Tools for Gas Lift Valve (3)

5. Slanting Tool (ZX-1) is designed to running the gas lift valve into mandrel.



O.D.	Dimension of fishing neck	Conn. thread
φ38mm	φ35mm	M24×3 (P×B)

6. Connection Tool (TF-1) is designed to connect operating tool with gas lift valve by a brass pin.

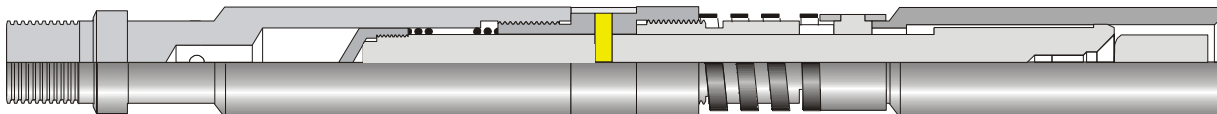


O.D.	Length	Dimension of fishing neck	Conn. thread
φ33	116	φ30	M24×3



## Operating Tools for Gas Lift Valve (4)

7. Pulling Tool is designed to fish gas lift valve.



O.D.	Length	Dimension of fishing neck	Conn. thread
φ40	356	φ30	M24×3