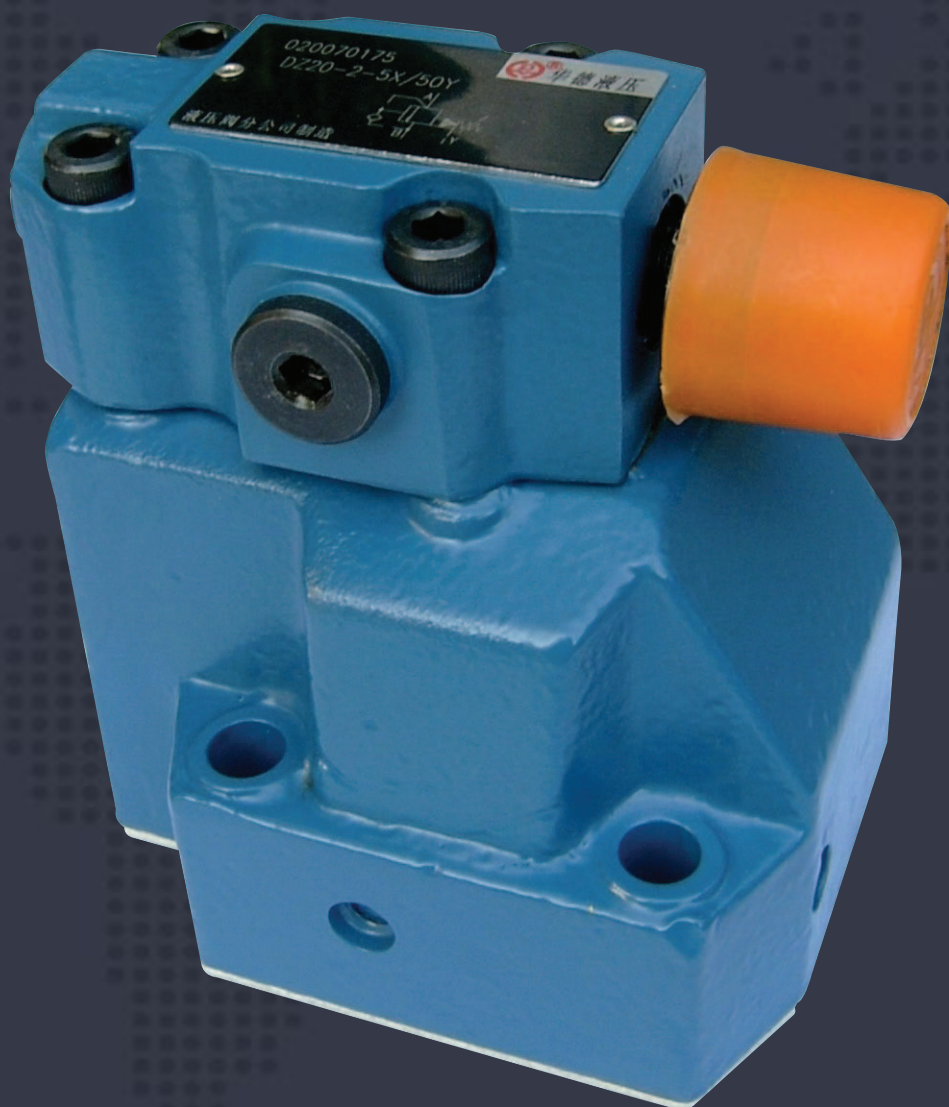




Catálogo de Productos

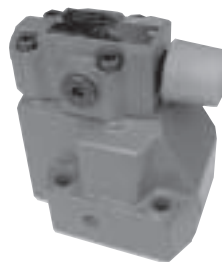


Pressure sequence valve pilot operated, type DZ ...50B/(New series)

BEIJING HUADE HYDRAULIC INDUSTRIAL GROUP CO.,LTD.	Pressure sequence valve pilot operated, type DZ ...50B/(New series)			RE26350/12.2004
	Size 10, 20, 30	up to 31.5 MPa	up to 600 L/min	

Features:

- For subplate mounting
- 4 adjustment elements:
 - Rotary knob
 - Sleeve with hexagon and protective cap
 - Lockable rotary knob with scale
 - Rotary knob with scale
- 4 pressure ratings
- Check valve, optional
- Mounting pattern to DIN 24 340, form D, ISO 5781 and CETOP-RP 121H



Functional, section

Pressure valves type DZ are pilot operated pressure sequence valves. They are used for pressure dependent sequence switching of a second circuit.

The pressure sequence valves basically consist of main valve (1) with main spool insert (7) and pilot valve (2) with pressure adjustment element and check valve (3), optional.

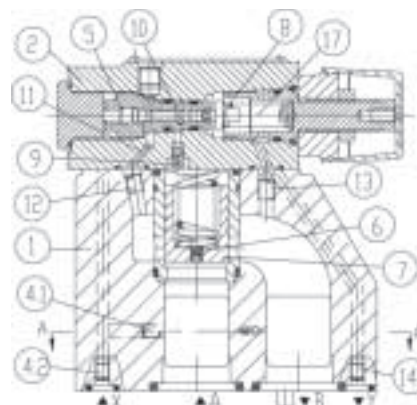
The valve function varies according to pilot oil drain configuration:

Sequence valve type DZ...50B/... .

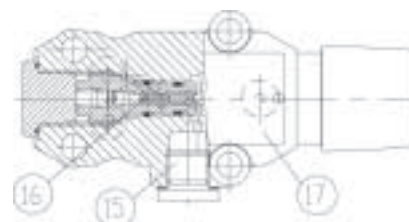
(Control lines 4.1, 12 and 13 open; control lines 4.2, 14 and 15 plugged)

The pressure in line A acts on the pilot spool (5) in the pilot valve (2) via the control line (4.1). At the same time it acts on the spring loaded side of the main spool (7) via orifice (6). When the pressure exceeds the value set at spring (8), the pilot piston (5) is moved against the spring (8). The signal is obtained internally from port A via control line (4.1).

The fluid on the spring loaded side of the main piston (7) now flows to port B via orifice (9), control land (10) and control lines (11) and (12). There is now a pressure drop at main spool (7), the connection from port A to port B is open maintaining the pressure set at spring (8). The leakage oil at pilot piston (5) is led to port B internally via control line (13). An optional check valve (3) can be fitted for free return flow from port B to A.



Type DZ...50B/210...



Sequence valve type DZ...50B/...X...

(Control lines 4.2, 12 and 13 open;
control lines 4.1, 14 and 15 plugged)

The function of this valve is principally the same as for valve DZ...-50B/....

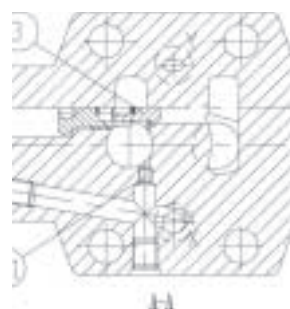
However, on pressure sequence valve type DZ...50B/...X... the signal is given externally by means of control line (4.2).

Sequence valve type DZ...50B/...Y...

(Control lines 4.1, 12 and 14 or 15 open; control lines 4.2, and 13 plugged)

The function of this valve is principally the same as for valve type DZ...50B/....

However, for type DZ...50B/...Y... leakage at pilot piston (5) must be drained to tank without pressure via line (14) or (15). Pilot oil is fed to port B via line (12).



No check valve
With check valve

Sequence valve type DZ...50B/...XY...

(Control lines 4.2, 14 or 15 open; control lines 4.1, 12 and 13 plugged)

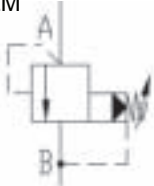
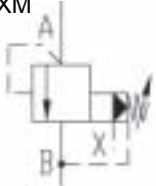
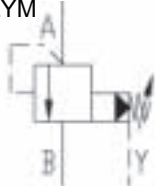
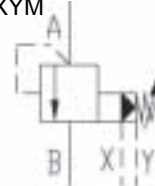
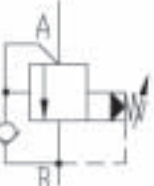
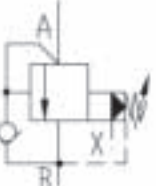
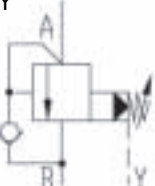
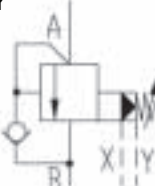
Pressure in port X acts on the pilot piston (5) in the pilot valve (2) via control line (4.2). At the same time pressure in port A acts on the spring loaded side of the main spool (7) via orifice (6). When the pressure in port X exceeds the value set at the spring (8), the pilot piston (5) is moved against the spring (8). When pilot piston (5) is moved against spring (8), fluid can pass from the spring loaded side of the main spool (7) into the spring chamber (17) of the pilot valve (2) via orifice (9) and line (16) and pressure breaks down on the spring loaded side of the main spool (7).

The fluid can, therefore, pass from port A to B with minimum loss of pressure. The pilot oil in spring chamber (17) should be drained to tank without pressure via line (14) or (15). An optional check valve (3) can be fitted for free return flow from port B to A.

Ordering details

DZ					50	B						*
Pilot operated valve = No code Pilot operated valve without main spool insert (do not state nominal size) = C Pilot operated valve with main spool insert (state valve size 30) = C						Further details in clear text						
Nominal size 10 = 10 Nominal size 25 = 20 Nominal size 32 = 30						No code. = mineral oils V = phosphate ester						
Adjustment element Rotary knob = 1 Sleeve with hexagon and protective cap = 2 Lockable rotary knob with scale = 3 Rotary knob with scale = 7						No code = pilot port, G1/4" 2 = pilot port, M14X1.5						
Series 50 to 59 = 50 (50 to 59: unchanged installation and connection dimensions)						No code = With check valve M = Without check valve						
Technology of Beijing Huade Hydraulic						=B						
						50 = Settable pressure up to 5.0 Mpa 100 = Settable pressure up to 10.0 Mpa 200 = Settable pressure up to 20.0 Mpa 315 = Settable pressure up to 31.5 Mpa						

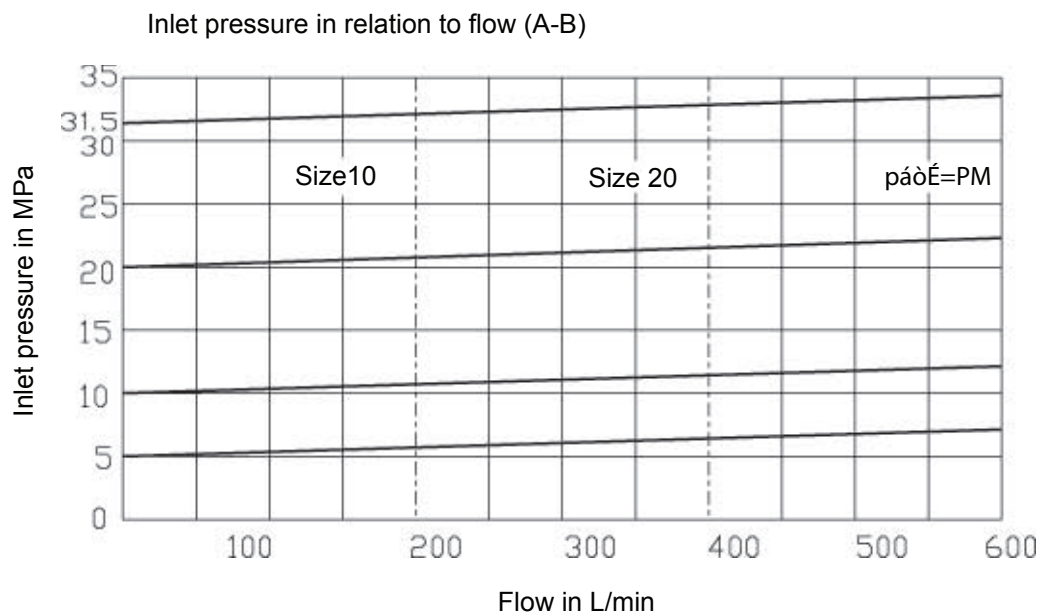
Symbols:

DZ...50B/...M DZC...50B/...M 	DZ...50B/...XM DZC...50B/...XM 	DZ...50B/...YM DZC...50B/...YM 	DZ...50B/...XYM DZC...50B/...XYM 
DZ...50B/... 	DZ...50B/...X 	DZ...50B/...Y 	DZ...50B/...XY 

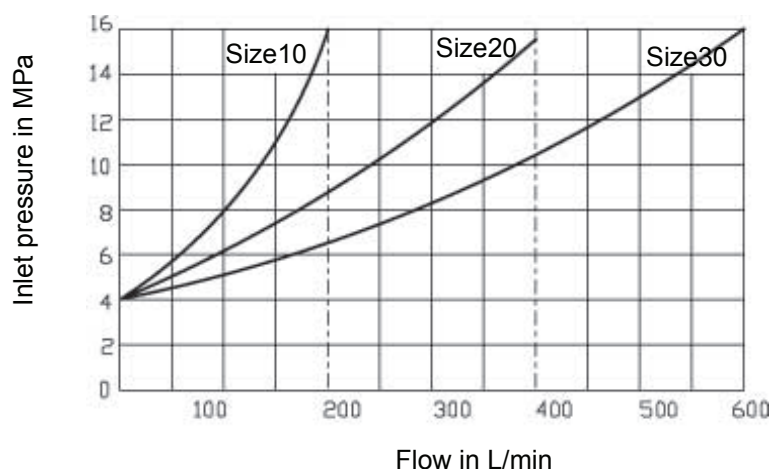
Technical data

Operating pressure, port A,B,X		(MPa)	up to 31.5		
Backpressure, port Y		(MPa)	up to 31.5		
Fluid pressure	min.	(MPa)	Not related to flow, see characteristic curves		
	max.	(MPa)	to 5, to 10, to 20, to 31.5		
Max. flow		(L/min)	Size10	Size20	Size30
			200	400	600
Fluid			Mineral oil (for NBR seal), or phosphate ester (for FPM seal)		
Viscosity range		(mm ² /s)	10~800		
Fluid temperature range		(°C)	-30~+80		
Degree of contamination		(μm)	Maximum permissible degree of contamination of the fluid to NAS 1638, class 9.		
Weight			Size10	Size20	Size30
	DZ	(Kg)	3.4	5.3	8
	DZC	(Kg)	1.2		
	DZC30	(Kg)	1.5		

Characteristic curves (measured at $v = 41 \text{ mm}^2/\text{s}$ and $t = 50^\circ\text{C}$)

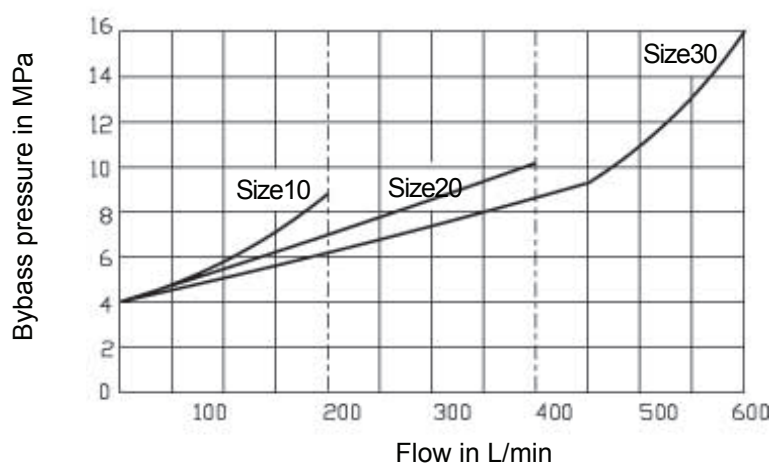


Minimum settable pressure in relation to flow (A-B)
(= bypass pressure model ...X...)



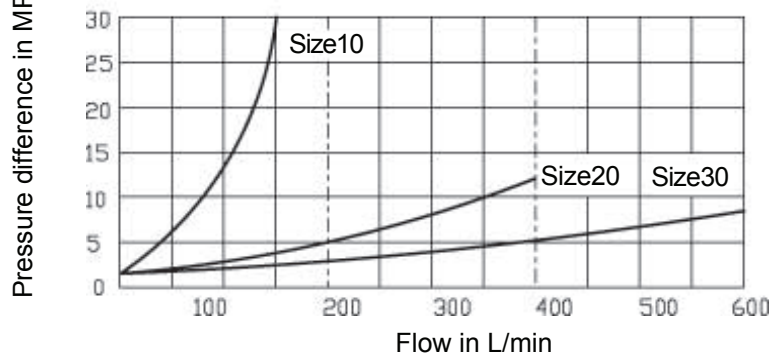
The characteristic curves are valid for outlet pressure $P_B = 0$ for the complete flow range

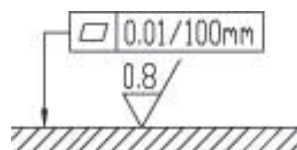
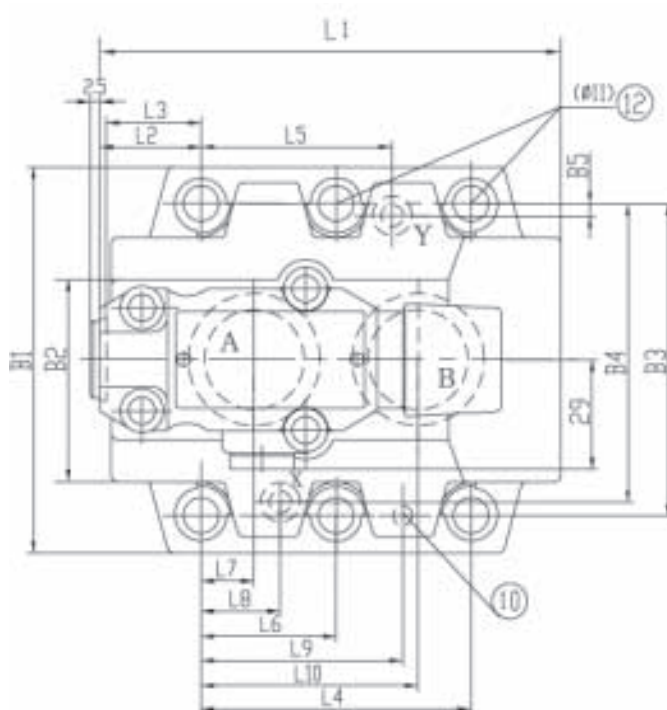
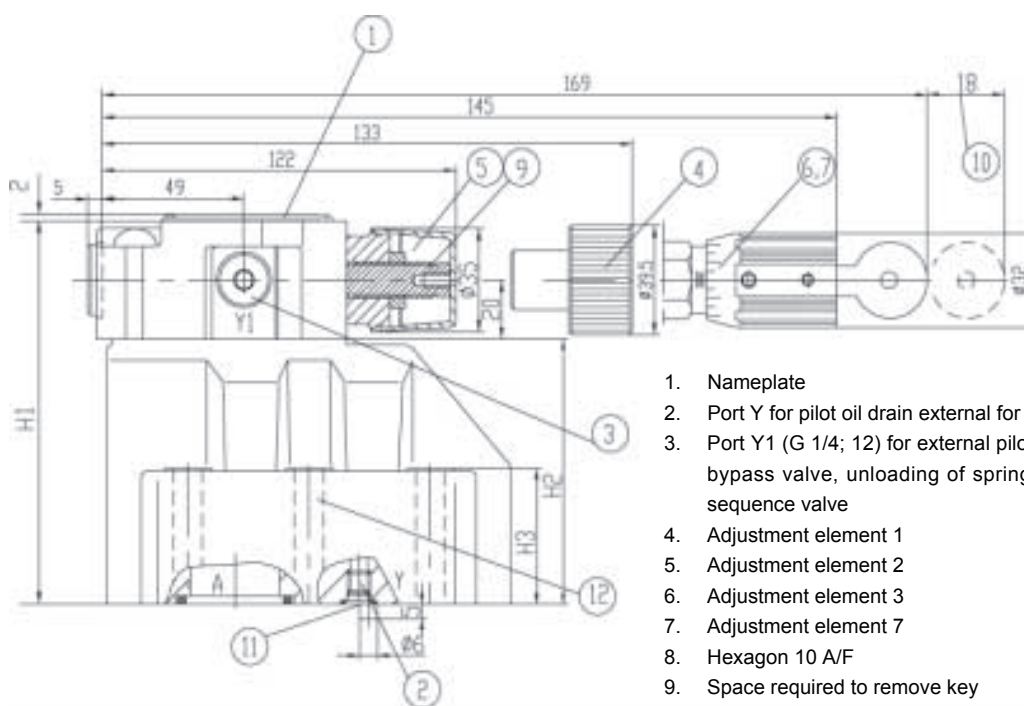
Bypass pressure in relation to flow (A → B) (model ...XY...only)



The characteristic curves are valid for outlet pressure $P_B = 0$ for the complete flow range

$\Delta p - q_v$ Characteristic curves across the check valve (A → B)





Required surface finish
of mating piece

Subplates: see page150

Size 10: G460/01(G3/8"); G460/02(M18X1.5)
G461/01(G1/2"); G461/02(M22X1.5)

Size 20: G412/01(G3/4"); G412/02(M27X2)
G413/01(G1"); G413/02(M33X2)

Size 30: G414/01(G1 1/4"); G414/02(M42X2)
G415/01(G1 1/2"); G415/02(M48X2)

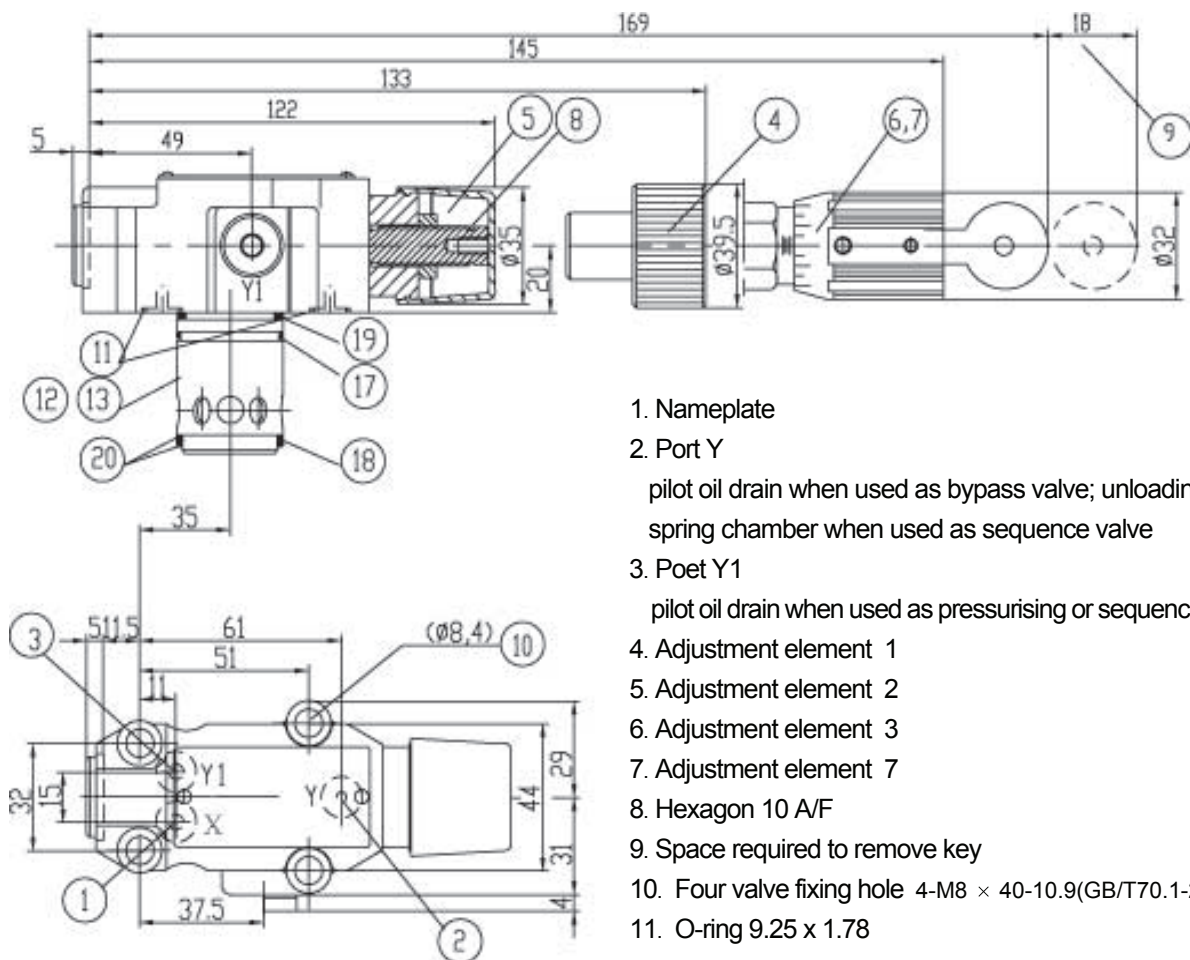
Valve fixing screws

Size10: 4-M10x50-10.9
(GB/T70.1-2000); $M_A=75$ Nm

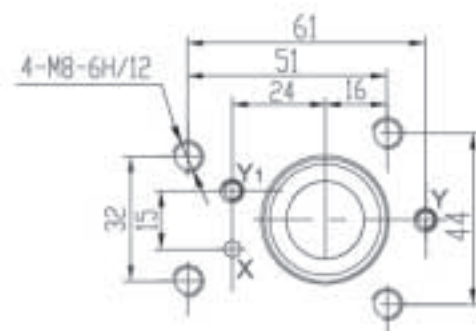
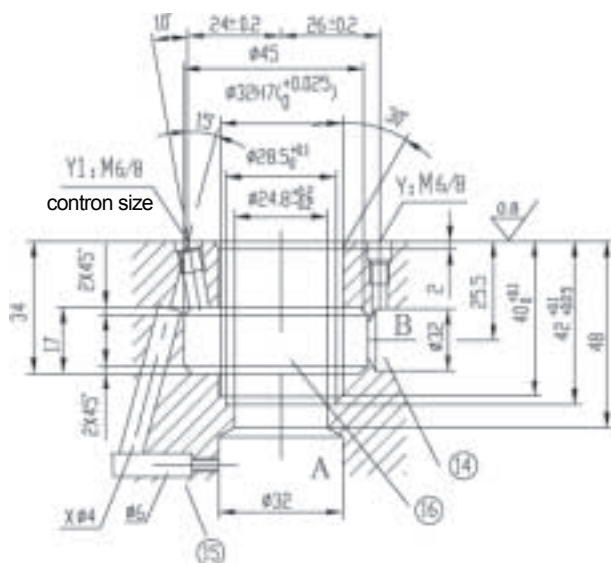
Size25: 4-M10x60-10.9
(GB/T70.1-2000); $M_A=75$ Nm

Size32: 6-M10x70-10.9
(GB/T70.1-2000); $M_A=75$ Nm

Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	B1	B2	B3	B4	B5	H1	H2	H3	O-rings(port A,B)	O-rings(port X,Y)
10	96	35.5	33	42.9	21.5	-	7.2	21.5	31.8	35.8	85	50	66.7	58.8	7.9	112	92	28	17.12 × 2.62	9.25 × 1.78
20	116	37.5	35.4	60.3	39.7	-	11.1	20.6	44.5	49.2	102	59.5	79.4	73	6.4	122	102	38	28.17 × 3.53	9.25 × 1.78
30	145	33	29.8	84.2	59.5	42.1	16.7	24.6	62.7	67.5	120	76	96.8	92.8	3.8	130	110	46	34.52 × 3.53	9.25 × 1.78



- | | |
|--|--|
| 12. Main spool insert | 16 Back-up ring and O-ring to be inserted into this hole |
| 13 Cartridge assembly includes main spool insert with jet | before fitting the main spool |
| 14 Hole Φ 32 can meet hole Φ 45 at any location. | 17. O-ring 28.3 x 1.8 |
| Care has to be taken that connection hole X and the | 18. O-ring 27.3 x 2.4 |
| fixing hole are not damaged. | 19. O-ring 28 x 2.65 |
| 15 This drilling is not required when used as bypass valve | 20. Rotainer ring 32 x 28.4 x0.8 |



ANNOTATIONS :

HUADE AMÉRICA

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