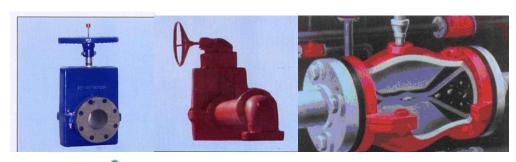


PASCO PINCH VALVES









1 General

Pinch valve is simple in construct. It is made of three parts, i.e. body, pipe sleeve and actuator. Its superior performance has far surpassed gate valve, plunger valve, ball valve. What's more, it can be tested for a long time. Our company introduces European pinch valve manufacturing technology and the key pinch valve possesses a lot of characteristics, i.e. full bore, wear proof, anti-corrosive, clean, scale control ,unaffected by service flowing direction and no need for equipment and maintenance.

According to the different usage in the industrial field, our company uses different rubber material and manufacturing technology. Pipe sleeve can be suitable for different service, for instance: mud, coal, water containing a lot of quartz sand, sewage, scale water, acid, alkali, salt, oil, food and medicine. Its driving device can use manual, pneumatic, hydraulic or electric. Pinch valve is mainly used in the fields of sewage treatment, electric power industry, mine industry, metallurgy industry, chemical industry, pharmacy industry, paper industry and food industry.

2 Principles

Pinch valve's main parts are pipe and sleeve. Pinch valve can be controlled by manual, pneumatic, hydraulic or electric. It possesses high restriction function. When valve is restricted or closed, its pipe and sleeve and the valve center line are in symmetry, so it can reduce pipe sleeve's wearing and prolong valve service time.

When pinch valve is closed, its pipe sleeve and valve body have large contact surface. Our company's pipe sleeve is elastic and has a long service time. It has no wearing after running millions of times. The pipe sleeve has two advantages: one is that it can endure the wearing of residue. The second is that the valve can also be closed tightly even though residues and particles are in the pipe sleeve.

3 Characteristics

- 1. 100% full bore. Pipe sleeve adopts full bore design, which makes valve have no dead angle and seam, and deal with particles in the service staying in the seat or the bearing in order not to block valve running or make valve fail.
- 2. Wearing proof, anti-corrosive. Pipe sleeve has complicated manufacturing process and uses different high strength fibers ameripol material. The product can be used in different purpose of industry. Its effective design makes it suitable for hard particles and all kinds of fluid, and it is wearing proof and anti-corrosive.
- 3. Self cleaning function. Pipe sleeve adopts full bore soft rubber design, liner is smooth and it has no scale. And it has self cleaning function when open and close pinch valve.
- 4. No need for equipment and maintenance. Pinch valve is simple in construct, and the pipe sleeve is the only contact parts with fluid, no packing material needed to maintain. So it makes valves not need to maintain and use expensive and special material. Besides, it has the minimum maintenance period and expenses.
- 5. Superior control characteristics. Pinch valve can be regulated easily if you rotate the wrench to control the constant capacity. It can be controlled by pneumatic, hydraulic or electric.
- 6. Simple construct. Pinch valve is made up of three parts: body, pipe sleeve and actuator. Valve's general construct can make users choose body construct, sleeve material or actuator according to their own process.

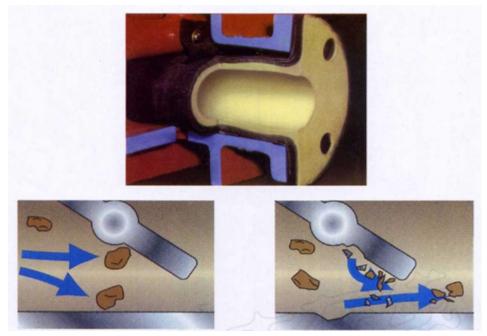
4 Pipe Sleeve Materials

The process of manufacturing pipe sleeve is very complicated. First, wind multi-layers of rubber material together. Then strengthen them with multilayers of nylon. These multi-layers of nylon are located in the middle of the pipe sleeve. The outside is attached with wearing proof surface. And then press and shape, so every layer will unit together.

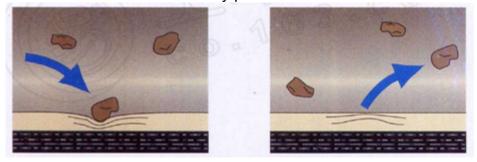
Because of complicated manufacturing process, different ameripol rubber material, products made of these materials can be used in different purposes of industry. Besides, the elasticity and hardness of sleeve can be regulated at random.

	Sleeve Material	Main Performance	Normal Ultimate Temperature	Suitable Service
	NR Natural Rubber	Large elasticity, good mechanical strength, tensile, wearing proof, anti-flexural, good air permeability resistance. The maximum temperature is 120C.	70~80°C	inorganic salt , purified water, sewage, inorganic acids, cement, clays, cinder, fertilizers in particles and solid fluid, all kinds of mucus.
Standard Sleeve	SBR	Better than natural rubber in heat resistance, oil resistance, wearing proof and resistance to aging. The maximum temperature is 120C.	80~100℃	inorganic salt , purified water, sewage, inorganic acids, cement, clays, cinder, fertilizers in particles and solid fluid, all kinds of mucus.
Sissive	IIR	Good air tightness, good heat resistance, good resistance to aging, good vibration, anti-acid and alkali, good solvent. The maximum temperature is 170C.	150℃	Organic acid, alkali, hydroxide compound, inorganic salt, inorganic acid, element gas, alcohol, aldehyde, Aether.
	CR	Excellent resistance to aging, good heat resistance and flame resistance, oil resistance is not better than IIR but better than other general rubber. Good anti-acid and alkali performance. The maximum temperature is 150C.	120℃	Animal oil, lubricant and corrosive sludge with large range in PH value.
	NBR	Good oil resistance, animal oil and vegetable oil. The maximum temperature is 170C.	120℃	Water, oil, waste gas and waste water.
	NBR/F	Completely meet the equirements of food quality.		Animal oil, vegetable oil.
	FPM	Excellent chemical resistance, service time is reduced in the high temperature. The maximum temperature is 315C.	200°C	Better than other rubbers in anti-corrosive performance. Suitable for inorganic acid, alkali, oil, lubricating oil and ozone.
Other Sleeve	CSM	Good anti-acid and alkali, good ozone resistance, atmospheric weathering and chemical attack. The maximum temperature is 150C.	100°C	Ozone and oxidant, strong acid in house temperature. E.g. sodium hypochlorite and Ferric Chloride
	EPDM	Ozone, light and chemical resistance. The maximum temperature is 150C.	150℃	Steam, water, 40% borated water, 5%~ 15% acids, alkali resistance.
	PU	The performance of abrasion resistance is better than other rubbers. Tensile strength is up to 35MPa, good oil resistance. The maximum temperature is 80C	-	Suitable for abrasive service.

5 Comparisons between Pipe Sleeve Material and other Materials



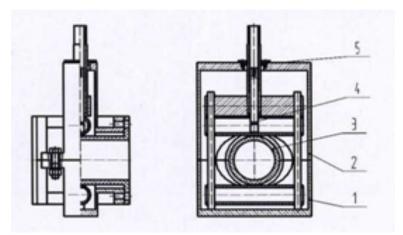
When fast angular particles attack smooth surface, energy caused by impact will be completely absorbed by Ceramic and metal alloy. So the surface will have abrasion in the early period.



When fast angular particles attack pure rubber surface, energy caused by impact will be absorbed by rubber and will return to make particles deviate. The pure rubber attrition rate is far lower than ceramic or metal alloy.

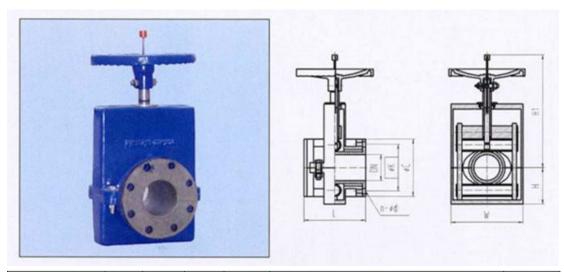
Notice: Seen from the above, pipe sleeve's material is superior to other material in wearing proof performance.

6 Main Parts Material



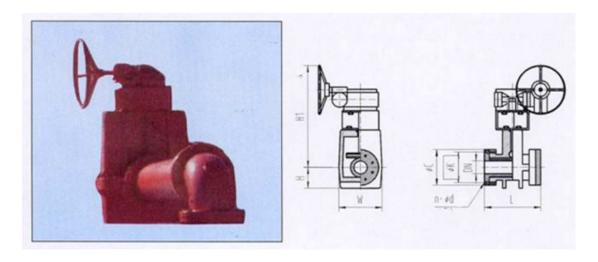
No	Parts	Material
1	Lower Body	Ductile Cast Iron or Casting Pig
2	Upper Body	Ductile Cast Iron or Casting Pig
3	Pipe Sleeve	Nylon Rubber
4	Pipe Clamp Module	Stainless Steel or A3 Steel
5	Sleeve	Aluminum Bronze

7 Manual Driving Device Outline Dimension



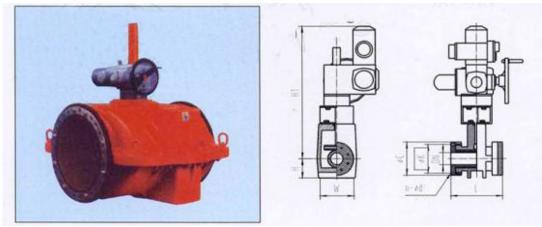
DN		W	Н	H1	PN0	Weight			
	-	"	''	'''	С	K	n	d	kg
50	178	150	80	330	165	125	4	19	30
65	190	180	100	350	185	145	4	19	35
80	203	220	115	375	200	160	8	19	45
100	229	275	145	380	220	180	8	19	55
125	254	380	210	390	250	210	8	19	60
150	267	456	200	450	285	240	8	23	70
200	400	580	230	520	340	295	8	23	220
250	500	740	260	640	395	350	12	23	250
300	600	875	290	760	445	400	12	23	270
350	700	940	360	850	505	460	16	23	310

8. Worm Gear Driving Device Outline Dimension



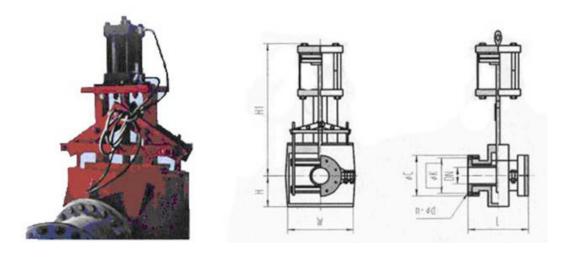
DN	L	W	Н	H1	P	PN0.6MPa PN1.0MPa				
					С	K	n	d	Kg	
50	178	150	80	330	165	125	4	19	70	
65	190	180	100	350	185	145	4	19	90	
80	203	220	115	375	200	160	8	19	100	
100	229	275	145	380	220	180	8	19	150	
125	254	380	210	390	250	210	8	19	170	
150	267	456	200	450	285	240	8	23	190	
200	400	580	230	520	340	295	8	23	280	
250	500	740	260	640	395	350	12	23	345	
300	600	875	290	760	445	400	12	23	420	
350	700	940	360	850	505	460	16	23	600	
400	800	1040	390	870	565	515	16	28	800	
450	900	1275	425	1000	615	565	20	28	1080	
500	1000	1190	440	1135	670	620	20	28	1230	
600	1200	1425	640	1180	780	725	20	31	1530	
700	1400	1800	500	1400	895	840	24	31	2700	
800	1600	1900	520	1650	1015	950	24	34	3000	
1000	2000	2140	800	1910	1230	1160	28	37	5800	

9. Electric Driving Device Outline Dimension



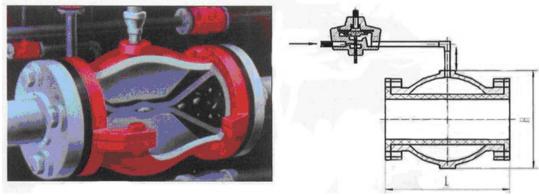
DN	L	W	Н	H1	P	PN0.6MPa PN1.0MPa				
					С	K	n	d	Kg	
50	178	150	80	520	165	125	4	19	75	
65	190	180	100	560	185	145	4	19	95	
80	203	220	115	580	200	160	8	19	110	
100	229	275	145	662	220	180	8	19	160	
125	254	380	210	800	250	210	8	19	180	
150	267	456	200	810	285	240	8	23	200	
200	400	580	230	810	340	295	8	23	300	
250	500	740	260	1075	395	350	12	23	365	
300	600	875	290	1150	445	400	12	23	450	
350	700	940	360	1290	505	460	16	23	650	
400	800	1040	390	1410	565	515	16	28	850	
450	900	1275	425	1490	615	565	20	28	1180	
500	1000	1190	440	1570	670	620	20	28	1430	
600	1200	1425	640	1725	780	725	20	31	1730	
700	1400	1800	500	1850	895	840	24	31	3000	
800	1600	1900	520	1850	1015	950	24	34	3400	
1000	2000	2140	800	2400	1230	1160	28	37	6500	

10. Hydraulic (Pneumatic) Driving Device Outline Dimension



DN	L	W	Н	H1	P	PN0.6MPa PN1.0MPa				
					С	K	n	d	Kg	
50	178	150	80	520	165	125	4	19	70	
65	190	180	100	560	185	145	4	19	80	
80	203	220	115	580	200	160	8	19	85	
100	229	275	145	662	220	180	8	19	95	
125	254	380	210	800	250	210	8	19	110	
150	267	456	200	810	285	240	8	23	130	
200	400	580	230	810	340	295	8	23	170	
250	500	740	260	1075	395	350	12	23	230	
300	600	875	290	1150	445	400	12	23	320	
350	700	940	360	1290	505	460	16	23	540	
400	800	1040	390	1410	565	515	16	28	720	
450	900	1275	425	1490	615	565	20	28	900	
500	1000	1190	440	1570	670	620	20	28	1100	
600	1200	1425	640	1725	780	725	20	31	1890	
700	1400	1800	500	1850	895	840	24	31	3600	
800	1600	1900	520	1850	1015	950	24	34	3800	
1000	2000	2140	800	2400	1230	1160	28	37	6500	

11. Pneumatic Driving Device Outline Dimension



DN	L	Н	PN	Weight			
			С	К	n	d	kg
50	225	165	165	125	4	19	15
65	250	175	185	145	4	19	18
80	300	200	200	160	8	19	25
100	315	265	220	180	8	19	38
125	415	290	250	210	8	19	54
150	500	325	285	240	8	23	75
200	550	410	340	295	8	23	107
250	600	525	395	350	12	23	190
300	650	600	445	400	12	23	290
350	750	550	505	460	16	23	354
400	850	740	565	515	16	28	415
450	975	760	615	565	20	28	580
500	1075	775	670	620	20	28	780
600	1175	870	780	725	20	31	860
700	1275	960	895	840	24	31	950

Note: 1. the technical data is subject to amend without notice, while is subject to the actual product

2. If you have any alteration, please note when you ordering.