



Vacuum Pad: Lateral Vacuum Entry with One-touch Fitting Without Buffer

Series ZPR



Specifications

Vacuum entry	Direction		Lateral	
	Connection		One-touch fitting	
Applicable tube dia.	2 x 4, 3.5 x 7, 4 x 10 Thin section series (ø10 to ø16) ø2 to ø8		ø4, ø6 tube	
	ø10 to ø16		ø4, ø6 tube	
	ø20 to ø32		ø4, ø6, ø8 tube	
	ø40 to ø50		ø6, ø8 tube	
Mounting	Connection		Male thread	Female thread
	2 x 4, 3.5 x 7, 4 x 10 Thin section series (ø10 to ø16) ø2 to ø8		M5 x 0.8, M6 x 1	M4 x 0.7, M5 x 0.8
	ø10 to ø16		M5 x 0.8, M6 x 1	M5 x 0.8, M6 x 1
	ø20 to ø32		M6 x 1, M8 x 1	M5 x 0.8, M6 x 1, M8 x 1.25
	ø40 to ø50		M6 x 1, M8 x 1	M6 x 1, M8 x 1.25

Pad Type

Pad form	Flat	Flat with ribs	Deep	Bellows	Thin flat/Thin flat with ribs
Pad diameter (mm)	2, 4, 6, 8, 2 x 4, 3.5 x 7, 4 x 10, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16, 20, 25, 32, 40, 50	10, 16, 25, 40	6, 8, 10, 13, 16, 20, 25, 32, 40, 50	10, 13, 16
Material (Color)	NBR (Black), Silicon rubber (White), Urethane rubber (Brown), Fluoro rubber (Black with green mark) Conductive NBR (Black with one white mark), Conductive silicon rubber (Black with two white marks)				
Durometer	NBR (50°), Silicon rubber (40°), Urethane rubber/Fluoro rubber (60°) Conductive NBR (50°), Conductive silicon rubber (50°)				

Weight/Male Thread (Female thread)

(g)

Model	Flat				Flat with ribs			Deep			Bellows			
	M4	M5	M6	M8	M5	M6	M8	M5	M6	M8	M4	M5	M6	M8
ZPR02 to 08 2004, 3507, 4010 Thin section series 10 to 16	— (19)	26 (20)	27 (—)	—	—	—	—	—	—	—	(19) (Except ø2, ø4)	26(20) (Except ø2, ø4)	27(—) (Except ø2, ø4)	—
ZPR10	—	—	—	—	—	—	—	29 (23)	30 (22)	—	—	—	—	—
ZPR13	—	29 (23)	31 (21)	—	29 (23)	31 (22)	—	—	—	—	—	29 (23)	31 (22)	—
ZPR16	—	—	—	—	—	—	—	31 (23)	31 (22)	—	—	—	—	—
ZPR20	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ZPR25	—	— (51)	57 (50)	61 (48)	— (51)	57 (50)	61 (48)	— (51)	65 (50)	68 (48)	—	— (51)	57 (50)	61 (48)
ZPR32	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ZPR40	—	—	64 (56)	67 (54)	—	64 (56)	67 (54)	—	65 (57)	68 (55)	—	—	64 (56)	67 (54)
ZPR50	—	—	66 (58)	69 (56)	—	67 (59)	70 (57)	—	—	—	—	—	66 (58)	69 (56)

(): Figures for female thread connections.

Made to Order P. 13-11-65 to 13-11-68

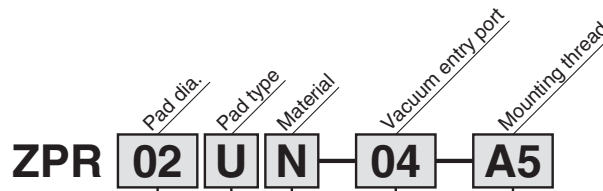
Vacuum Pad: Lateral Vacuum Entry with One-touch Fitting without Buffer Series ZPR

Model

Model	Pad dia. (ømm)	Pad form						Vacuum entry port (One-touch fitting)	Mounting										
		Flat (U)	Flat with ribs (C)	Deep (D)	Bellows (B)	Thin flat (UT)	Thin flat with ribs (CT)		Male thread	Female thread									
ZPR2004	2 x 4	●	—	—	—	—	—	● ø4, ø6 tube	● M5 x 0.8 M6 x 1	● M4 x 0.7 M5 x 0.8									
ZPR3507	3.5 x 7																		
ZPR4010	4 x 10																		
ZPR02	2																		
ZPR04	4																		
ZPR06	6																		
ZPR08	8																		
ZPR10	10																		
ZPR13	13										●	●	—	—	—	—	● ø4, ø6 tube	● M5 x 0.8 M6 x 1	● M5 x 0.8 M6 x 1
ZPR16	16																		
ZPR20	20																		
ZPR25	25																		
ZPR32	32																		
ZPR40	40																		
ZPR50	50																		
		●	●	●	●	—	—	● ø4, ø6, ø8 tube	● M6 x 1 M8 x 1	● M5 x 0.8 M6 x 0.1 M8 x 1.25									

How to Order

Series ZPR
Without Buffer



Pad diameter (mm)

2004	2 x 4
3507	3.5 x 7
4010	4 x 10
02	ø2
04	ø4
06	ø6
08	ø8
10	ø10
13	ø13
16	ø16
20	ø20
25	ø25
32	ø32
40	ø40
50	ø50

Pad type



(Refer to "Table (1)" for applications.)

U	Flat
C	Flat with ribs
D	Deep
B	Bellows
UT	Thin flat
CT	Thin flat with ribs

Mounting thread

(Refer to "Table (2)" for applications.)



Vacuum entry port

(Refer to "Table (2)" for applications.)



Table (2) Vacuum Entry/Mounting Thread Diameter

Connection	Symbol	Thread dia./ Port size	ø2 to ø8 2 x 4 3.5 x 7 4 x 10 ø10 to ø16 (This section series)	ø10 to ø16	ø20 to ø32	ø40, ø50
Mounting	Male thread	A5	ø4 tube	●	●	—
		A6	ø6 tube	●	●	●
		A8	ø8 tube	—	—	●
		A8	ø8 tube	—	—	●
	Female thread	B4	M4 x 0.8	●	—	—
		B5	M5 x 0.8	●	●	—
		B6	M6 x 1	—	●	●
		B8	M8 x 1.25	—	—	●

Material

N	NBR
S	Silicon rubber
U	Urethane rubber
F	Fluoro rubber
GN *	Conductive NBR (ø2 to ø16)
GS *	Conductive silicon rubber (ø2 to ø16)

* ø20 and larger are manufactured upon a receipt of order.

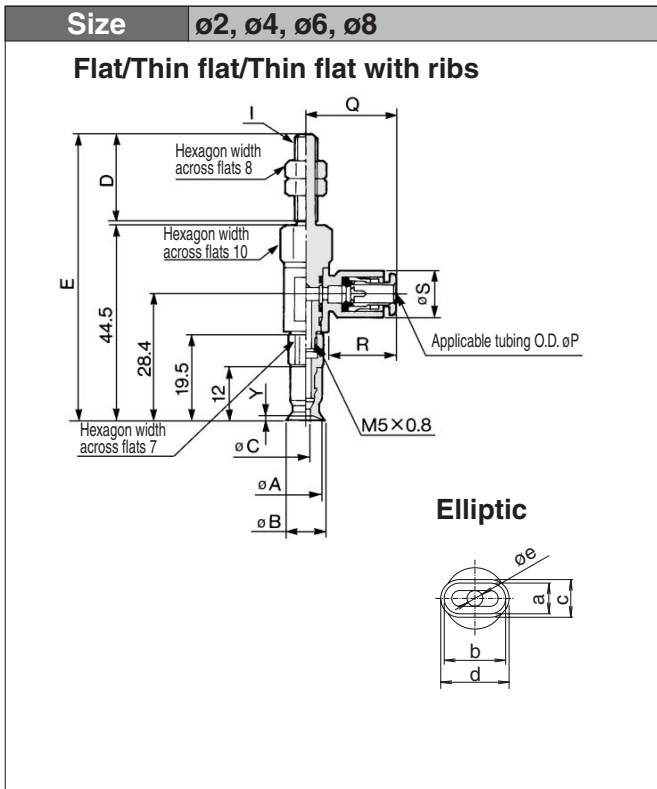
Table (1) Pad Diameter/Pad Type

Type \ Dia. (mm)	2 x 4	3.5 x 7	4 x 10	2	4	6	8	10	13	16	20	25	32	40	50
Flat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●
Deep	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bellows	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●
Thin flat	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—
Thin flat with ribs	—	—	—	—	—	—	—	●	●	●	—	—	—	—	—

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep/Thin flat/ Thin flat with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Male thread



Flat

Model	ϕA	ϕB	ϕC	I: M5 x 0.8		I: M6 x 1		Y
				D	E	D	E	
ZPR02U	2	2.6	1.2	20	65.5	25	70.5	0.8
ZPR04U	4	4.8	1.6					
ZPR06U	6	7	2.5					
ZPR08U	8	9	2.5					

Applicable Tubing

Applicable tubing O. D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8

Elliptic

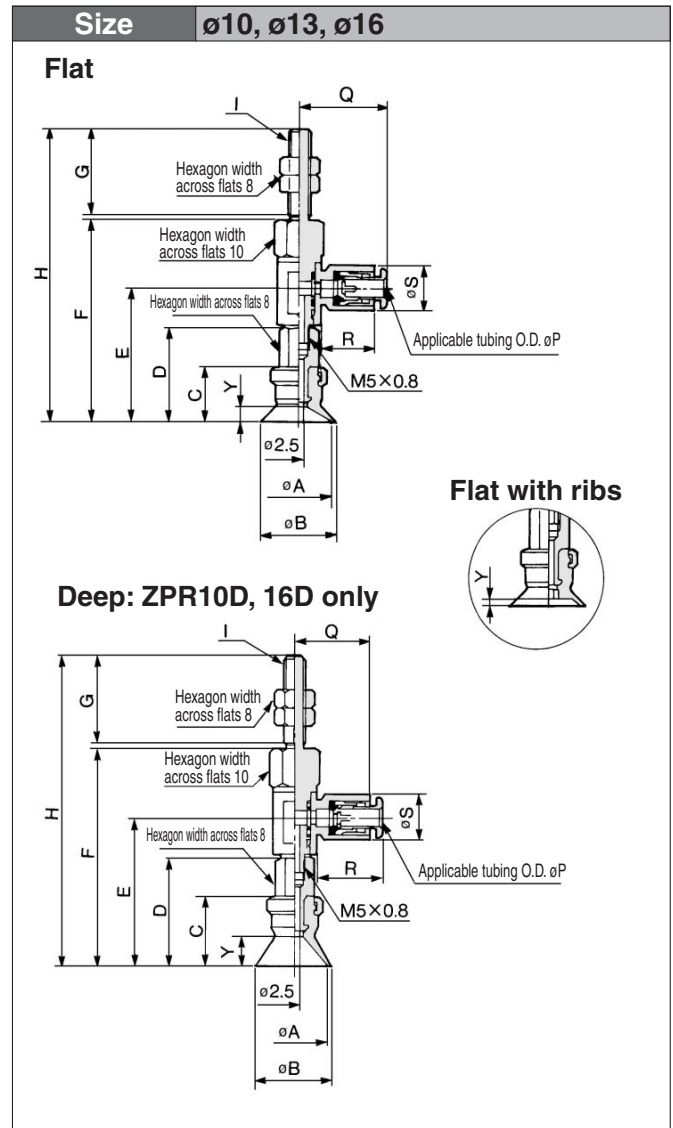
Model	a	b	c	d	ϕe	Y
ZPR2004U	2	4	2.6	4.6	1.2	0.3
ZPR3507U	3.5	7	4.3	7.8	1.8	0.5
ZPR4010U	4	10	5	11	2	0.8

* Dimensions of D, E, are the same.

Thin Flat/Thin Flat with Ribs

Model	A	B	Y
ZPR10UT	10	11	1
ZPR13UT	13	14	1.5
ZPR16UT	16	17	
ZPR10CT	10	11	0.8
ZPR13CT	13	14	1
ZPR16CT	16	17	

* Dimensions of D, E, are the same.



Flat/Flat with Ribs

Model	ϕA	ϕB	C	D	E	F	I: M5 x 0.8		I: M6 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR10 ^U _C	10	12					20	67	25	72	3	1.7
ZPR13 ^U _C	13	15	12	21	29.9	46						
ZPR16 ^U _C	16	18	12.5	21.5	30.4	46.5						

Deep

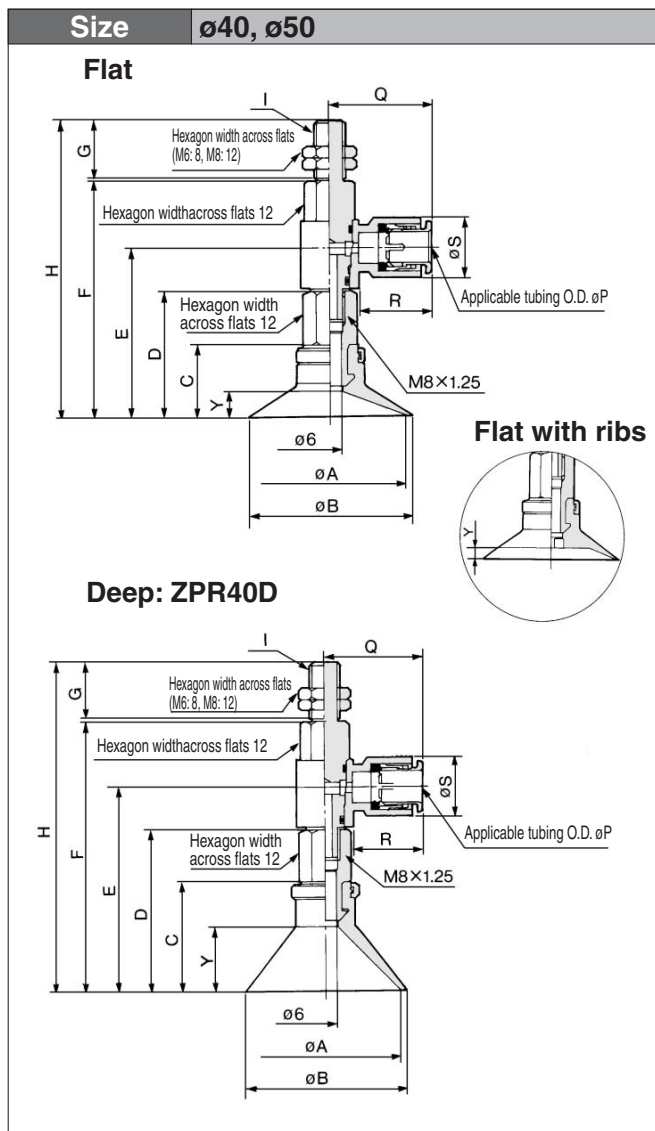
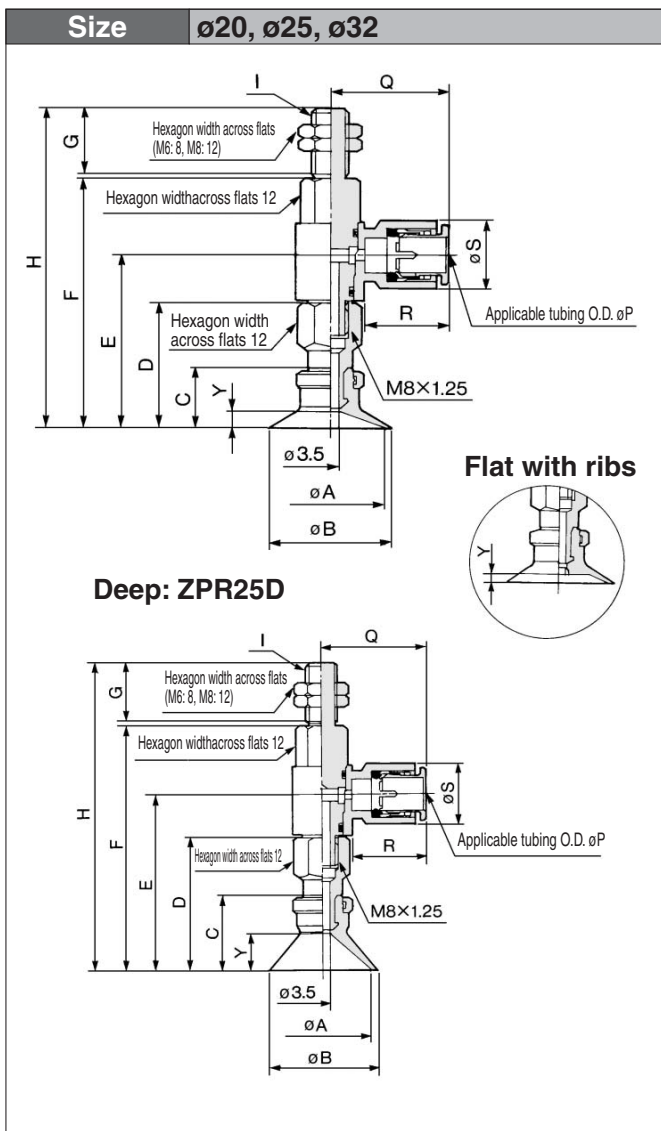
Model	ϕA	ϕB	C	D	E	F	I: M5 x 0.8		I: M6 x 1		Y
							G	H	G	H	
ZPR10D	10	12	15	24	32.9	49	20	70	25	75	6
ZPR16D	16	18	16	25	33.9	50					

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8

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Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Male thread



- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Flat/Flat with Ribs

Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR20 ^U _C	20	23										1.7
ZPR25 ^U _C	25	28	14	29	39.8	57.6	25	83.5	15	73.5	4	1.8
ZPR32 ^U _C	32	35	14.5	29.5	40.3	58.1		84		74	4.5	2.3

Deep

Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		Y
							G	H	G	H	
ZPR25D	25	28	20	35	48.5	63.6	25	89.5	15	79.5	10

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	23.3	15.8	10.4
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2

Flat/Flat with Ribs

Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		Y	
							G	H	G	H	Flat	Flat with ribs
ZPR40 ^U _C	40	43	18.5	32	42.8	60.6						
ZPR50 ^U _C	50	53	19.5	33	43.8	61.6	25	86.5	15	76.5	6.5	3.3
								87.5		77.5	7.5	3.8

Deep

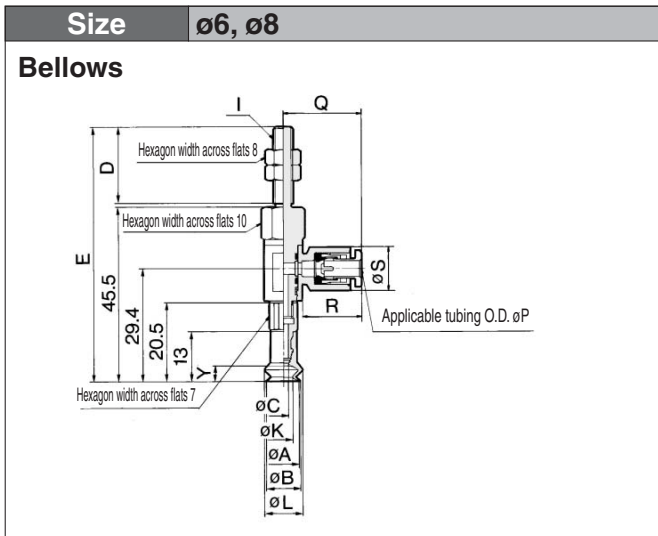
Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		Y
							G	H	G	H	
ZPR40D	40	43	29	42.5	53.3	71.1	25	97	15	87	17

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2

Series ZPR

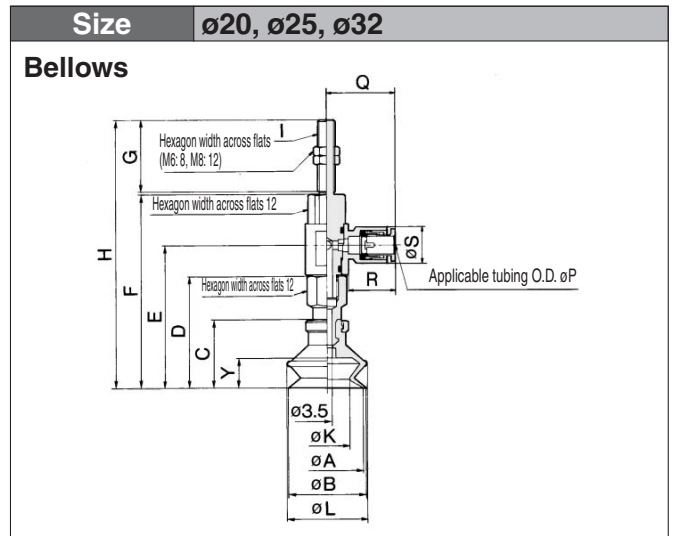
Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Male thread



Model	ϕA	ϕB	ϕC	I: M5 x 0.8		I: M6 x 1		ϕK	ϕL	Y
				D	E	D	E			
ZPR06B	6	7	2.5	20	66.5	25	71.5	3.3	9.1	4
ZPR08B	8	9		4.7	10.1					

Applicable Tubing

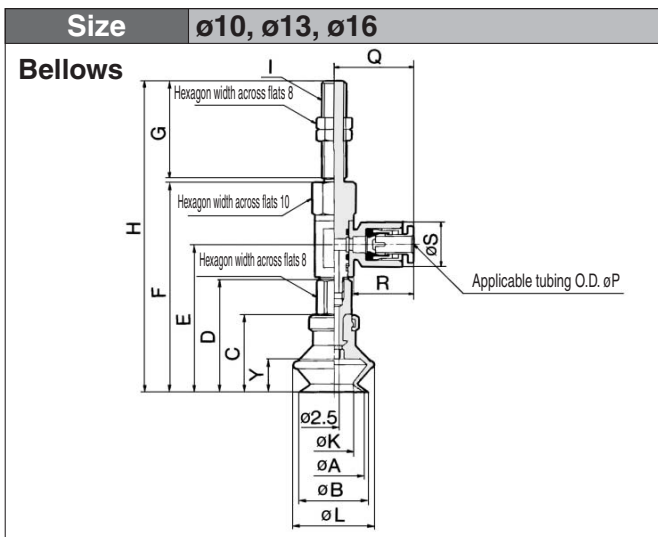
Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8



Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		ϕK	ϕL	Y
							G	H	G	H			
ZPR20B	20	22	23.5	38.5	49.3	67.1	25	93.5	15	83	12.4	25	10.5
ZPR25B	25	27	24	39	49.8	67.6				83.5	15.6	28	10.5
ZPR32B	32	34	29	44	54.8	72.6				88.5	18.9	37	14

Applicable Tubing

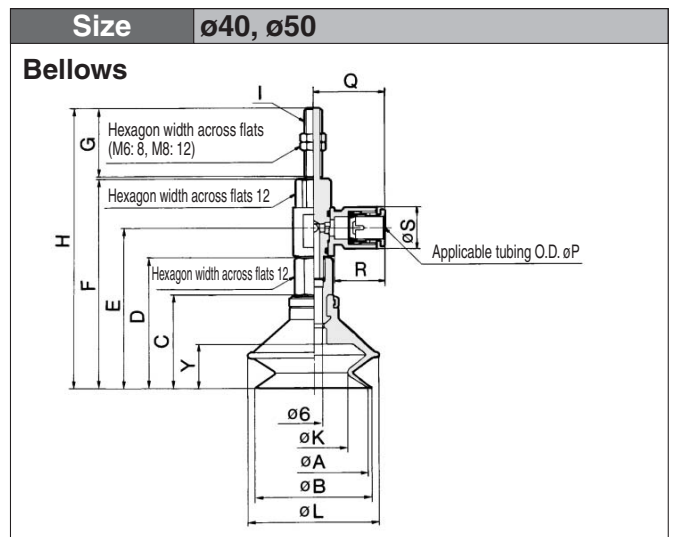
Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	23.3	15.8	10.4
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2



Model	ϕA	ϕB	C	D	E	F	I: M5 x 0.8		I: M6 x 1		ϕK	ϕL	Y	
							G	H	G	H				
ZPR10B	10	12	16	25	33.9	50	20	71	25	76	5.5	13.8	5.5	
ZPR13B	13	15	18.5	27.5	36.4	52.5				73.5	78.5	8.7	19	7.5
ZPR16B	16	18	20	29	37.9	54				75	80	9.9	21	8.5

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8



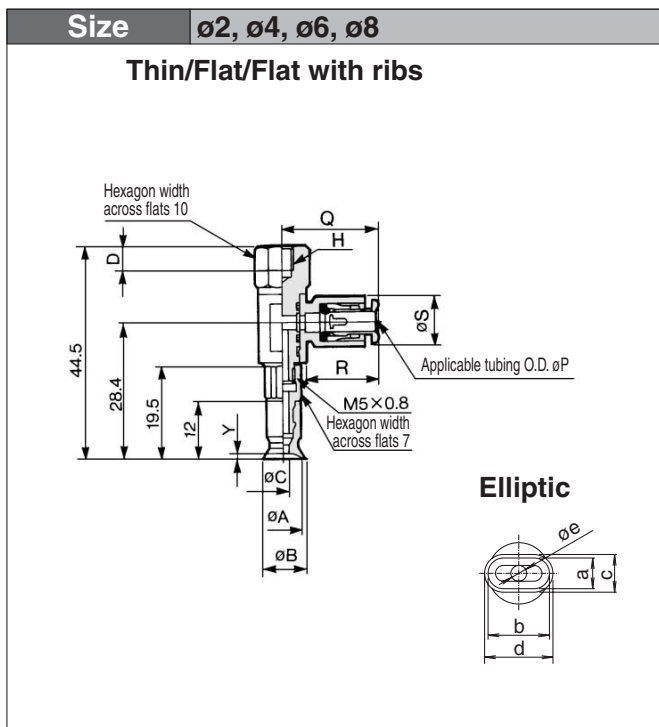
Model	ϕA	ϕB	C	D	E	F	I: M6 x 1		I: M8 x 1		ϕK	ϕL	Y
							G	H	G	H			
ZPR40B	40	43	34	47.5	58.3	76.1	25	102	15	92	24.4	48	16
ZPR50B	50	53	38	51.5	62.3	80.1				106	96	32.4	57

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2

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Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep/Thin/Thin with ribs/Elliptic
Vacuum Entry Port	Lateral	Mounting	Female thread



Flat

Model	ϕA	ϕB	ϕC	H: M4 x 0.7	H: M5 x 0.8	Y
				D	D	
ZPR02U	2	2.6	1.2	4	5	0.8
ZPR04U	4	4.8	1.6			
ZPR06U	6	7	2.5			
ZPR08U	8	9	2.5			1

Applicable Tubing

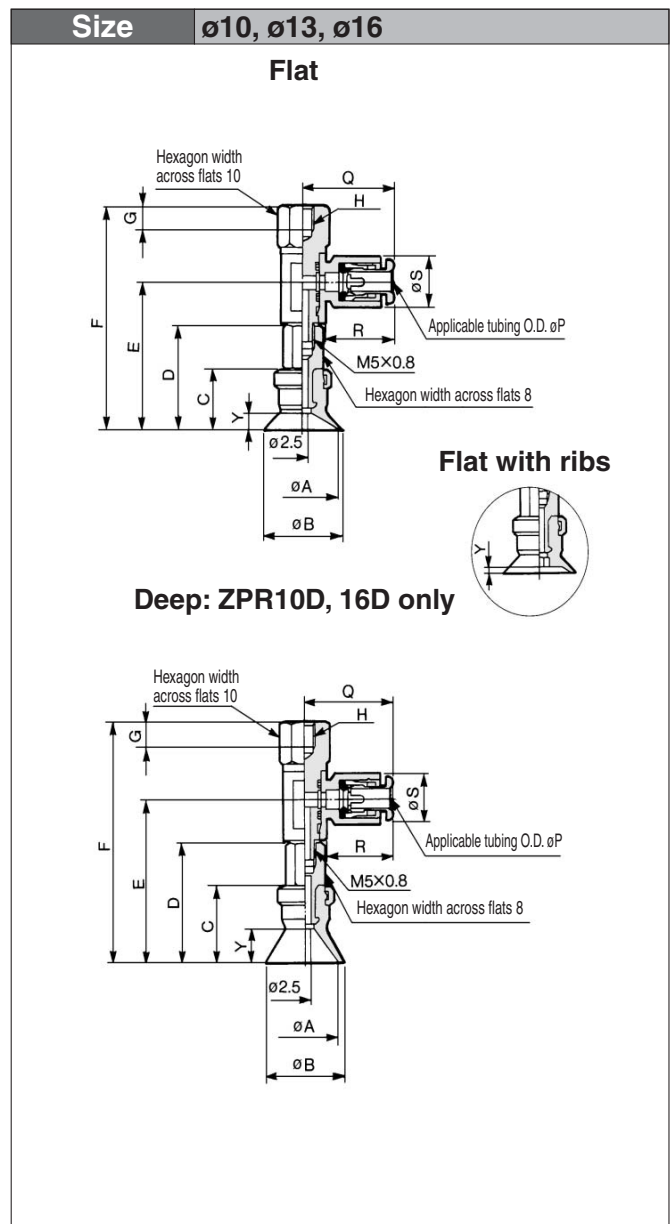
Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8

Model	a	b	c	d	ϕe	Y
ZPR2004U	2	4	2.6	4.6	1.2	0.3
ZPR3507U	3.5	7	4.3	7.8	1.8	0.5
ZPR4010U	4	10	5	11	2	0.8

* Dimensions of D are the same.

Model	A	B	C	Y
ZPR10UT	10	11	2.5	1
ZPR13UT	13	14		1.5
ZPR16UT	16	17		0.8
ZPR10CT	10	11		1
ZPR13CT	13	14		
ZPR16CT	16	17		

* Dimensions of D are the same.



Flat/Flat with Ribs

Model	ϕA	ϕB	C	D	E	F	H: M5 x 0.8	H: M6 x 1	Y	
							G	G	Flat	Flat with ribs
ZPR10 ^U _C	10	12	12	21	29.9	46	5	6	3	1.7
ZPR13 ^U _C	13	15	12	21	29.9	46				1.8
ZPR16 ^U _C	16	18	12.5	21.5	30.4	46.5			3.5	1.2
ZPR10 ^U _C	10	12	12	21	29.9	46				

Deep

Model	ϕA	ϕB	C	D	E	F	H: M5 x 0.8	H: M6 x 1	Y
							G	G	
ZPR10D	10	12	15	24	32.9	49	5	6	6
ZPR16D	16	18	16	25	33.9	50			7

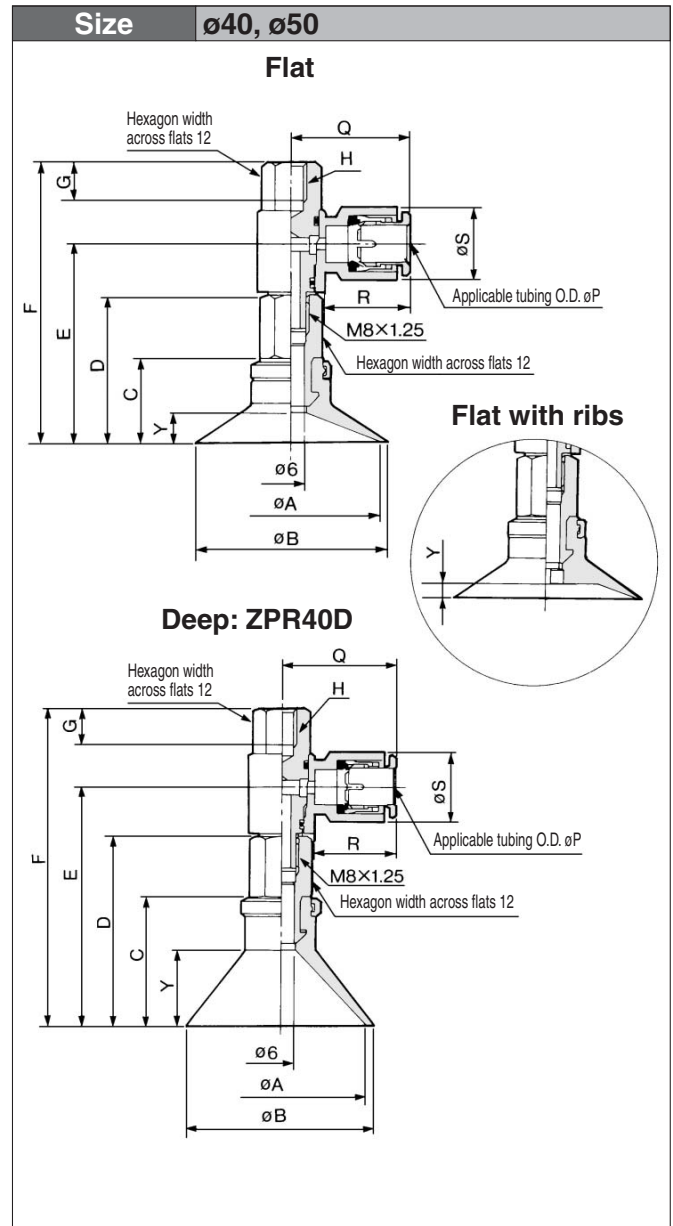
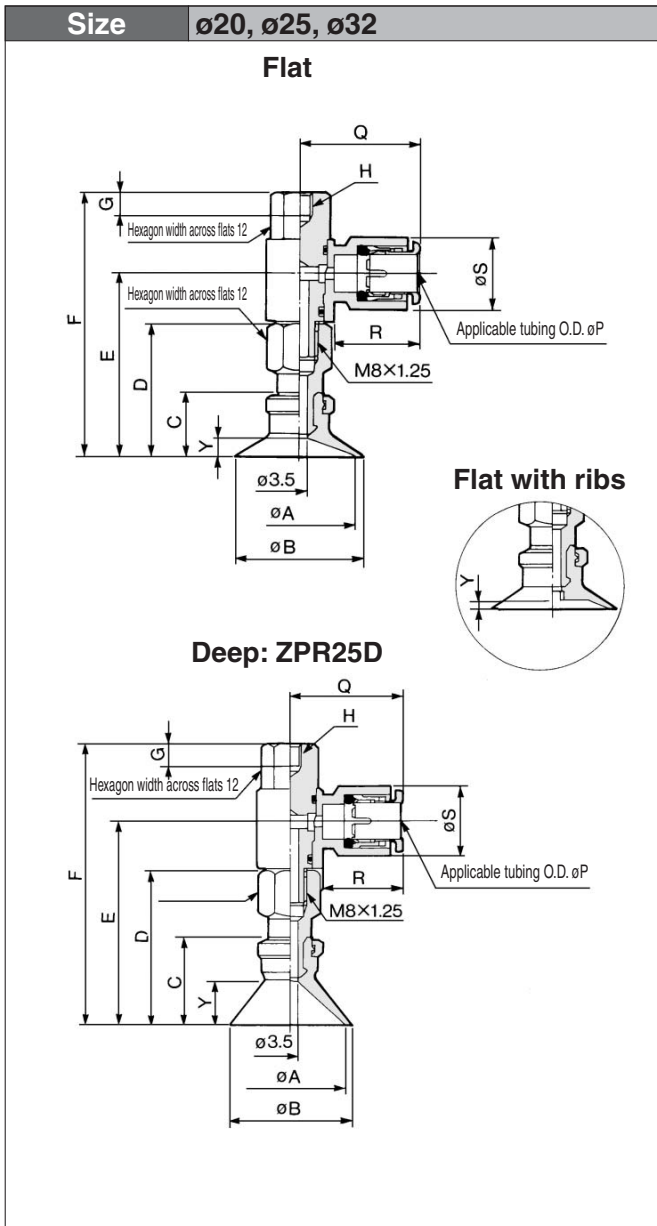
Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Series ZPR

Connection	One-touch fitting	Pad Form	Flat/Flat with ribs/Deep
Vacuum Entry Port	Lateral	Mounting	Female thread



Flat/Flat with Ribs

Model	$\varnothing A$	$\varnothing B$	C	D	E	F	H: M5 x 0.8	H: M6 x 1	H: M8 x 1.25	Y	
							G	G	G	Flat	Flat with ribs
ZPR20 ^U _C	20	23	14	29	39.8	57.6	5	6	8	4	1.7
ZPR25 ^U _C	25	28									1.8
ZPR32 ^U _C	32	35	14.5	29.5	40.3	58.1					4.5

Deep

Model	$\varnothing A$	$\varnothing B$	C	D	E	F	H: M5 x 0.8	H: M6 x 1	H: M8 x 1.25	Y
							G	G	G	
ZPR25D	25	28	20	35	45.8	63.6	5	6	8	10

Applicable Tubing

Applicable tubing O.D.	$\varnothing P$	Q	R	$\varnothing S$
$\varnothing 4$	4	23.3	15.8	10.4
$\varnothing 6$	6	24.3	16.8	12.8
$\varnothing 8$	8	26.2	18.7	15.2

Flat/Flat with Ribs

Model	$\varnothing A$	$\varnothing B$	C	D	E	F	H: M6 x 1	H: M8 x 1.25	Y	
							G	G	Flat	Flat with ribs
ZPR40 ^U _C	40	43	18.5	32	42.8	60.6	6	8	6.5	3.3
ZPR50 ^U _C	50	53	19.5	33	43.8	61.6			7.5	3.8

Deep

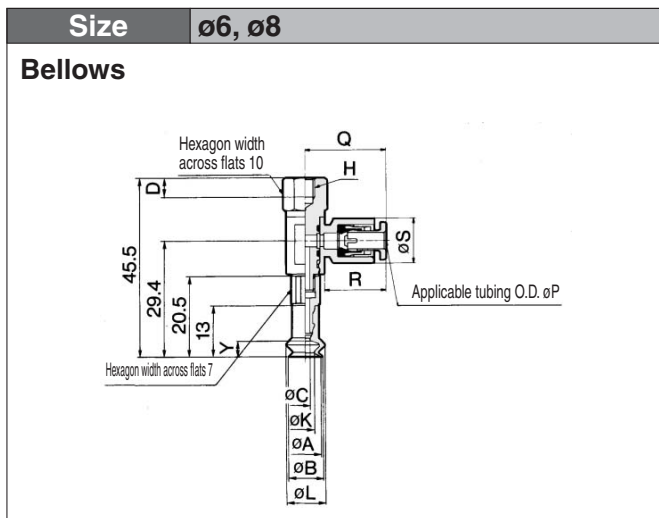
Model	$\varnothing A$	$\varnothing B$	C	D	E	F	H: M6 x 1	H: M8 x 1.25	Y
							G	G	
ZPR40D	40	43	29	42.5	53.3	71.1	6	8	17

Applicable Tubing

Applicable tubing O.D.	$\varnothing P$	Q	R	$\varnothing S$
$\varnothing 6$	6	24.3	16.8	12.8
$\varnothing 8$	8	26.2	18.7	15.2

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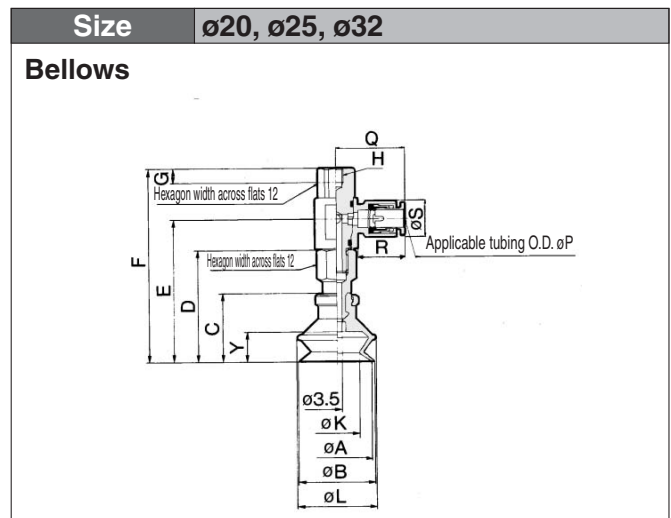
Connection	One-touch fitting	Pad Form	Bellows
Vacuum Entry Port	Lateral	Mounting	Female thread



Model	ϕA	ϕB	ϕC	H: M4 x 0.7		ϕK	ϕL	Y
				D	D			
ZPR06B	6	7	2.5	4	5	3.3	9.1	4
ZPR08B	8	9	2.5	4	5	4.7	10.1	4

Applicable Tubing

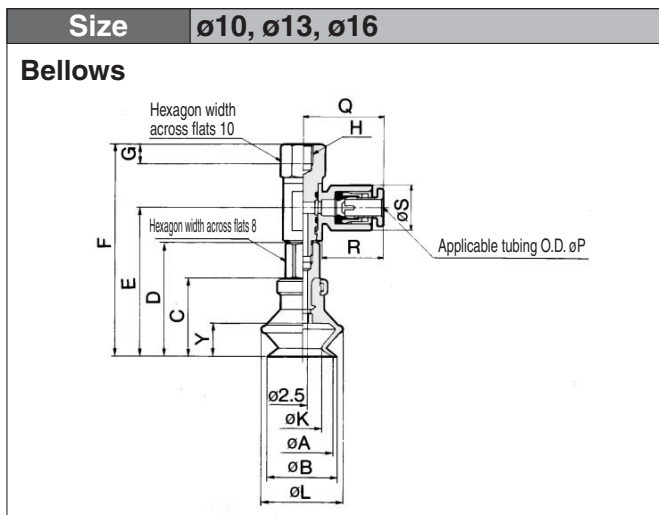
Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8



Model	ϕA	ϕB	C	D	E	F	H: M5 x 0.8			ϕK	ϕL	Y
							G	G	G			
ZPR20B	20	22	23.5	38.5	49.3	67.1	5	6	8	12.4	25	10.5
ZPR25B	25	27	24	39	49.8	67.6	5	6	8	15.6	28	10.5
ZPR32B	32	34	29	44	54.8	72.6	5	6	8	18.9	37	14

Applicable Tubing

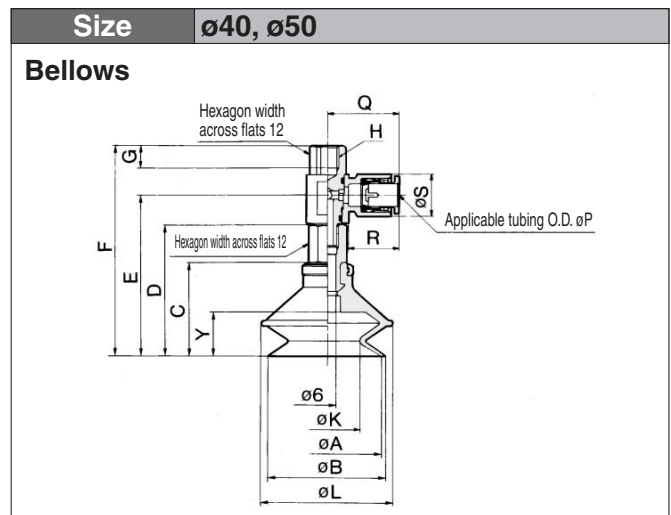
Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	23.3	15.8	10.4
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2



Model	ϕA	ϕB	C	D	E	F	H: M5 x 0.8		ϕK	ϕL	Y
							G	G			
ZPR10B	10	12	16	25	33.9	50	5	6	5.5	13.8	5.5
ZPR13B	13	15	18.5	27.5	36.4	52.5	5	6	8.7	19	7.5
ZPR16B	16	18	20	29	37.9	54	5	6	9.9	21	8.5

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 4$	4	20.6	15.6	10.4
$\phi 6$	6	21.6	16.6	12.8



Model	ϕA	ϕB	C	D	E	F	H: M6 x 1		H: M8 x 1.25		ϕK	ϕL	Y
							G	G	G	G			
ZPR40B	40	43	34	47.5	58.3	76.1	6	8	24.4	48	16		
ZPR50B	50	53	38	51.5	62.3	80.1	6	8	32.4	57	19		

Applicable Tubing

Applicable tubing O.D.	ϕP	Q	R	ϕS
$\phi 6$	6	24.3	16.8	12.8
$\phi 8$	8	26.2	18.7	15.2

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.