



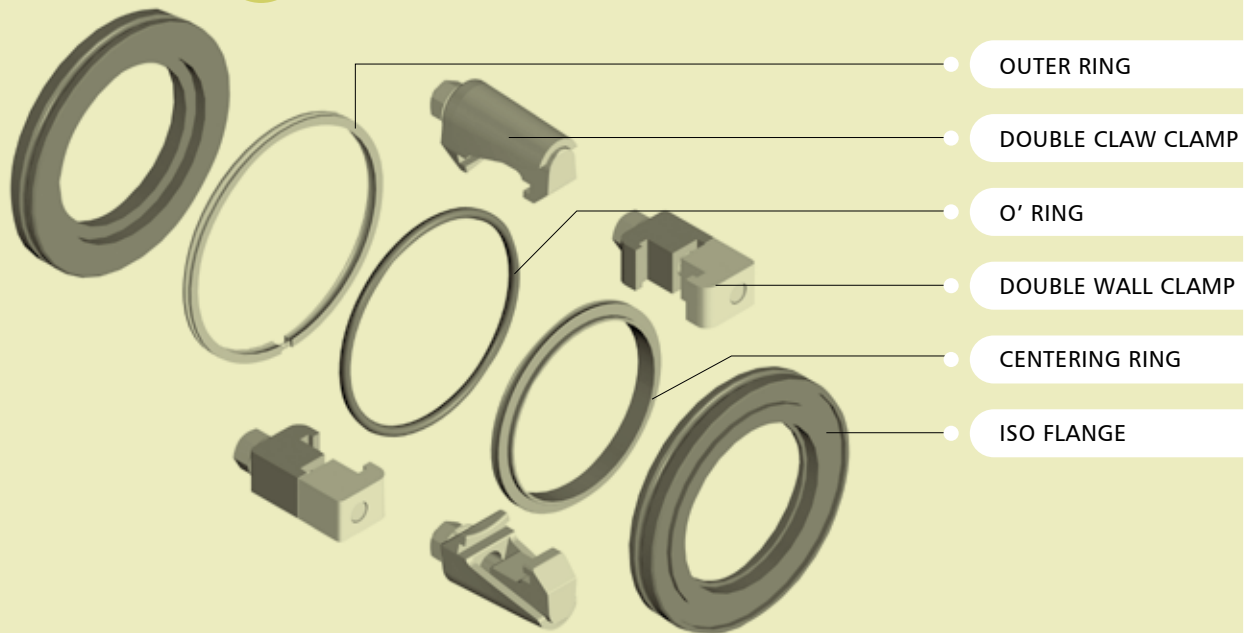
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## General Information



### Features

- The components of ISO universal flange system are defined by the International Standards Organization (ISO).
- The construction of ISO flange series includes two smooth-faced sexless flanges clamped together with a combination metal centering ring and elastomeric O-ring between them.
- ISO components are reusable and changeable with other ISO dimension components of the same size.

### Specifications

- Blanks & Flanges : 304 S.S. (Other material available upon request)
- Retainer Rings : 304 S.S. (Other material available upon request)
- Centering Rings : 304 S.S. (Other material available upon request)
- Outer Rings : Aluminum
- Clamps : Aluminum, Stainless steel, Steel plated
- O'ring material : Viton or NBR
- Temperature Range : 150°C ( Viton ) 80°C ( NBR )
- Vacuum Rate : 10<sup>-8</sup> torr

**Larger or special size available upon request**

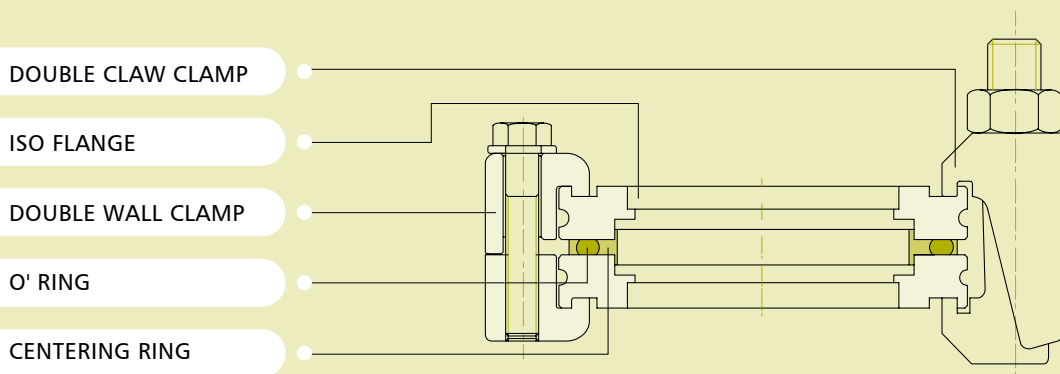
# Complete Clamp Assemblies

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The system is versatile because of the many ways in which components can be assembled.

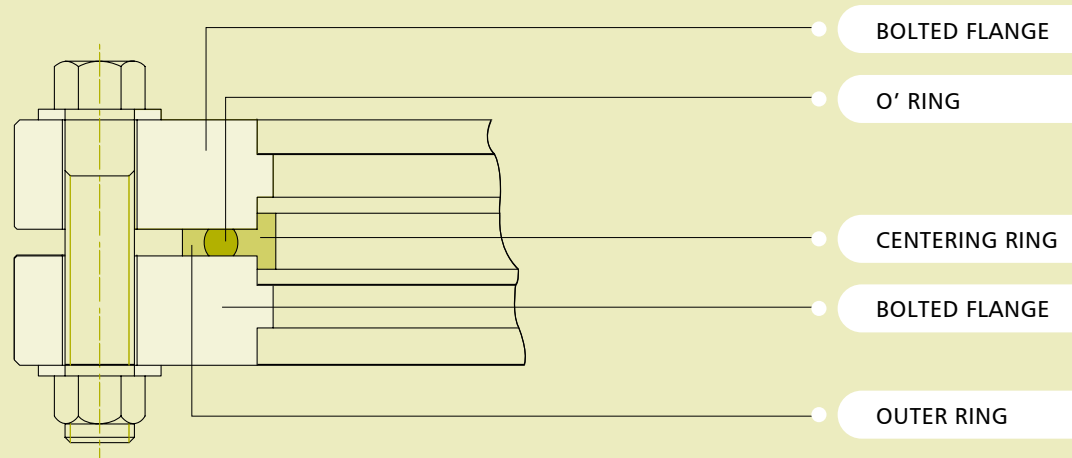
## 1 Double Wall-Clamp or Double Claw Clamp

Illustrates the double wall (claw) clamp assembly to connect pairs of ISO flanges. Ease of use and economic make this the most commonly used configuration.



## 2 Bolted Nonrotatable

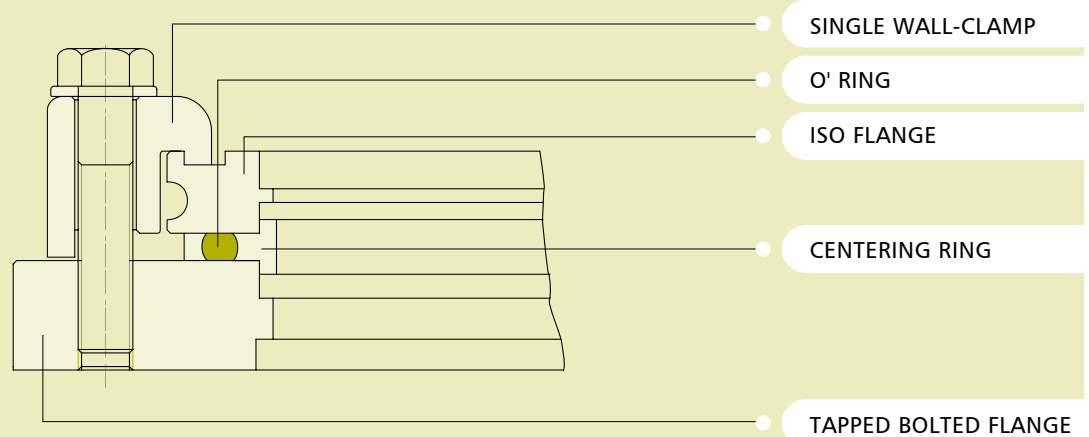
The two bolt flanges connected in the normal way.



## Complete Clamp Assemblies

### ③ Single Wall Clamp

Single wall clamps are used to join an ISO flange to a tapped flange on a pump, chamber or gate valve.



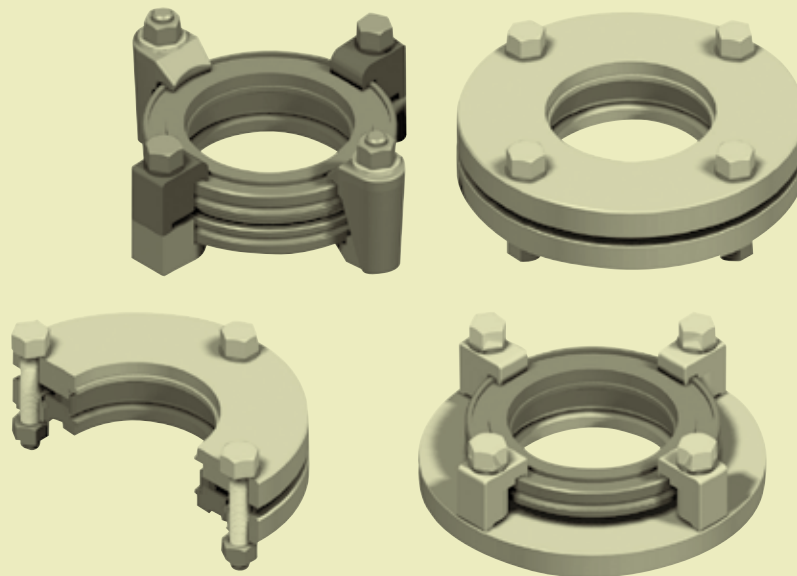
### ④ Bolted Rotatable

This fastening method allows the ISO flange to be rotated for ease of component alignment. Additionally, a rotatable bolt ring can be used to fasten an ISO flange to a non-rotatable flange using bolt.



## Applications for ISO Components

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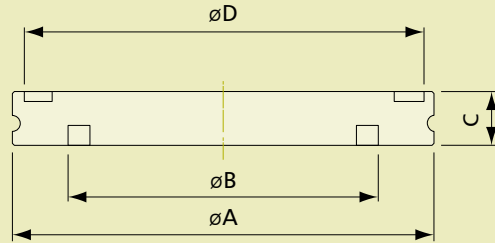
*Applications for this system are as varied as the imagination can make them. Some examples are:*

- 1 Roughing and foreline plumbing for large vacuum system.
- 2 High vacuum, high conductance, inter-connections.
- 3 Modular system which will be modified frequently.
- 4 System requiring frequent cleaning.
- 5 Experimental system in research laboratories.

# 02

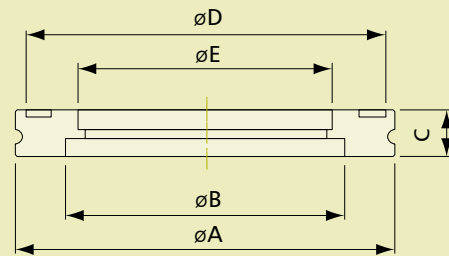
## CHAPTER ISO-FLANGE SERIES

### Blank



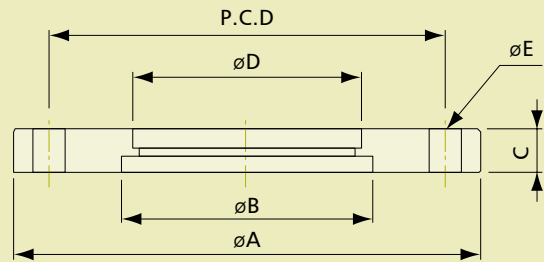
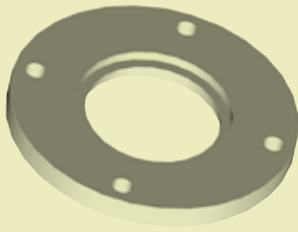
Model No.	Material	A	B	C	D	Parts No.
ISO63B	304 S.S.	95	70	12	90	152107003
ISO80B	304 S.S.	110	83	12	105	152108003
ISO100B	304 S.S.	130	102	12	125	152109003
ISO160B	304 S.S.	180	153	12	175	152112003
ISO200B	304 S.S.	240	213	12	235	152113003
ISO250B	304 S.S.	290	261	12	285	152114003
ISO320B	304 S.S.	370	318	17	365	152116003
ISO400B	304 S.S.	450	400	17	445	152118003
ISO500B	304 S.S.	550	501	17	545	152120003

### Bored Blank



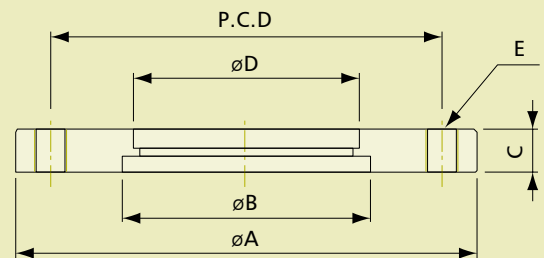
Model No.	Material	A	B	C	D	E	Parts No.
ISO63B63	304 S.S.	95	70	12	90	63.7	152207153
ISO80B76	304 S.S.	110	83	12	105	76.4	152208163
ISO100B102	304 S.S.	130	102	12	125	101.8	152209183
ISO160B153	304 S.S.	180	153	12	175	152.9	152212203
ISO200B204	304 S.S.	240	213	12	235	203.7	152213213
ISO250B255	304 S.S.	290	261	12	285	254.5	152214223
ISO320B305	304 S.S.	370	318	17	365	305.3	152216233
ISO400B407	304 S.S.	450	400	17	445	406.9	152218253
ISO500B509	304 S.S.	550	501	17	545	508.8	152220273

## Bolted Flange

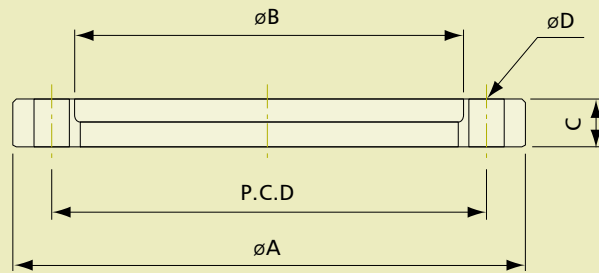


Model No.	Material	A	B	C	D	E *No	P.C.D	Parts No.
ISO63BF	304 S.S.	130	70	12	63.7	9*4	110	152307153
ISO80BF	304 S.S.	145	83	12	76.4	9*8	125	152308163
ISO100BF	304 S.S.	165	102	12	101.8	9*8	145	152309183
ISO160BF	304 S.S.	225	153	16	152.9	11*8	200	152312203
ISO200BF	304 S.S.	285	213	16	203.7	11*12	260	152313213
ISO250BF	304 S.S.	335	261	16	254.5	11*12	310	152314223
ISO320BF	304 S.S.	425	318	20	305.3	14*12	395	152316233
ISO400BF	304 S.S.	510	400	20	406.9	14*16	480	152318253
ISO500BF	304 S.S.	610	501	20	508.8	14*16	580	152320273

## Bolted Flange-Tapped



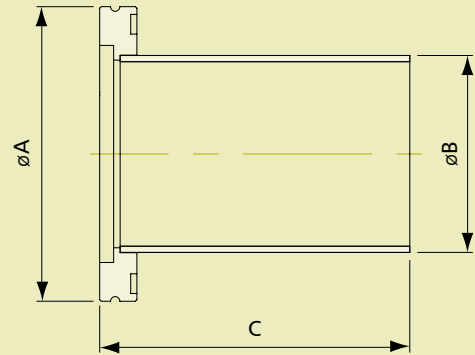
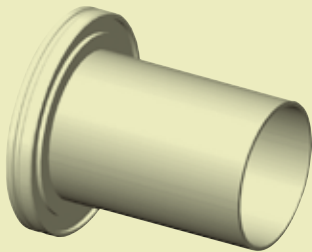
Model No.	Material	A	B	C	D	E *No	P.C.D	Parts No.
ISO63BFTAP	304 S.S.	130	70	12	63.7	M8*4	110	152407153
ISO80BFTAP	304 S.S.	145	83	12	76.4	M8*8	125	152408163
ISO100BFTAP	304 S.S.	165	102	12	101.8	M8*8	145	152409183
ISO160BFTAP	304 S.S.	225	153	16	152.9	M10*8	200	152412203
ISO200BFTAP	304 S.S.	285	213	16	203.7	M10*12	260	152413213
ISO250BFTAP	304 S.S.	335	261	16	254.5	M10*12	310	152414223
ISO320BFTAP	304 S.S.	425	318	20	305.3	M12*12	395	152416233
ISO400BFTAP	304 S.S.	510	400	20	406.9	M12*16	480	152418253
ISO500BFTAP	304 S.S.	610	501	20	508.8	M12*16	580	152420273

**Rotatable Bolt Ring**

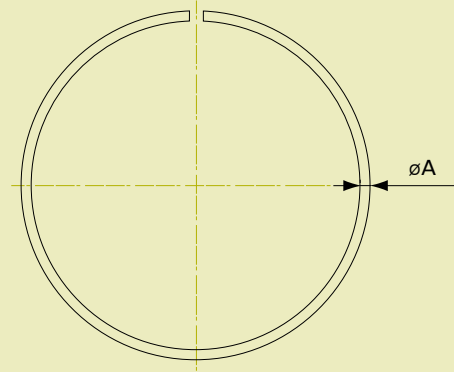
Model No.	Material	A	B	C	D *No	P.C.D	Parts No.
ISO63RBR	304 S.S.	130	98.5	12	9*4	110	152507073
ISO80RBR	304 S.S.	145	113.5	12	9*8	125	152508083
ISO100RBR	304 S.S.	165	133.5	12	9*8	145	152509093
ISO160RBR	304 S.S.	225	185.7	16	11*8	200	152512123
ISO200RBR	304 S.S.	285	245.7	16	11*12	260	152513133
ISO250RBR	304 S.S.	335	295.7	16	11*12	310	152514143
ISO320RBR	304 S.S.	425	375.8	20	14*12	395	152516163
ISO400RBR	304 S.S.	510	458.8	20	14*16	480	152518183
ISO500RBR	304 S.S.	610	558.8	20	14*16	580	152520203



## Half Nipple

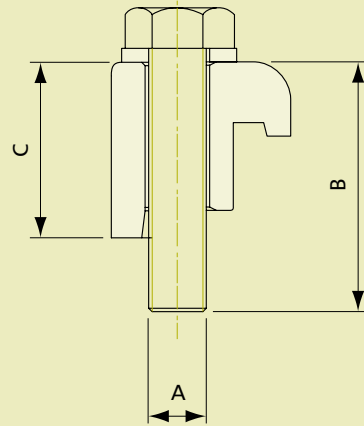


Model No.	Material	A	B	C	Parts No.
ISO63HN	304 S.S.	95	63.5	100	152607153
ISO80HN	304 S.S.	110	76.2	100	152608163
ISO100HN	304 S.S.	130	101.6	100	152609183
ISO160HN	304 S.S.	180	152.4	100	152612203
ISO200HN	304 S.S.	240	203.2	100	152613213
ISO250HN	304 S.S.	290	254	100	152614223
ISO320HN	304 S.S.	370	304.8	100	152616233
ISO400HN	304 S.S.	450	406.8	100	152618253
ISO500HN	304 S.S.	550	508	100	152620273

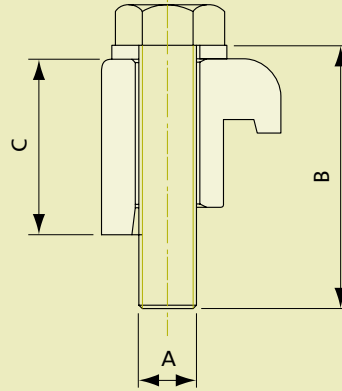
**Split Retainer Ring**

Model No.	Material	A	Fit Flange	Parts No.
ISO63SRR	304 S.S.	3	ISO63	20011041
ISO80SRR	304 S.S.	3	ISO80	20011141
ISO100SRR	304 S.S.	3	ISO100	20011241
ISO160SRR	304 S.S.	4.5	ISO160	20011541
ISO200SRR	304 S.S.	4.5	ISO200	20011641
ISO250SRR	304 S.S.	4.5	ISO250	20011741
ISO320SRR	304 S.S.	4.5	ISO320	20011941
ISO400SRR	304 S.S.	8	ISO400	20012141
ISO500SRR	304 S.S.	8	ISO500	20012341

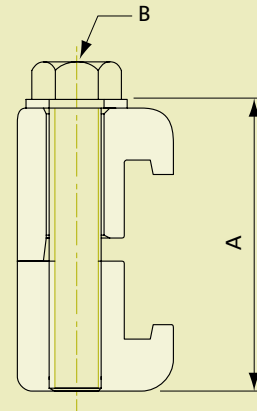
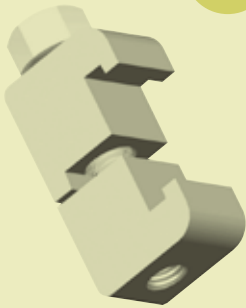
## Single Wall Clamp



Model No.	Material	A	B	C	Fit Flange	Parts No.
ISO63-100SWC304	304 S.S.	M8	35	23	ISO63	2121A241
					ISO80	
					ISO100	
					ISO160	
ISO160-250SWC304	304 S.S.	M10	35	23	ISO200	2121A441
					ISO250	
					ISO320	
ISO320-500SWC304	304 S.S.	M12	50	30	ISO400	2121A541
					ISO500	
					ISO63	
					ISO80	
ISO63-100SWC-ZP	Steel+Zn Plated	M8	35	23	ISO100	2121A231
					ISO160	
					ISO200	
					ISO250	
ISO160-250SWC-ZP	Steel+Zn Plated	M10	35	23	ISO320	2121A431
					ISO400	
					ISO500	
					ISO500	
ISO320-500SWC-ZP	Steel+Zn Plated	M12	50	30	ISO400	2121A531
					ISO500	
					ISO500	

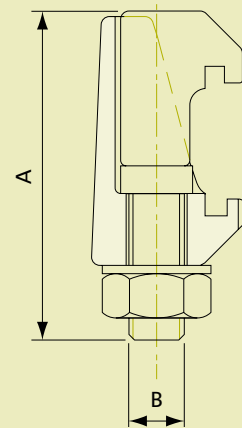
**Single Wall Clamp**

Model No.	Material	A	B	C	Fit Flange	Parts No.
ISO63-100SWCA	Aluminum	M8	35	23.5	ISO63	2121A211
					ISO80	
					ISO100	
					ISO160	
ISO160-250SWCA	Aluminum	M10	35	23.5	ISO200	2121A411
					ISO250	
					ISO320	
ISO320-500SWCA	Aluminum	M12	50	30	ISO400	2121A511
					ISO500	

**Double Wall Clamp**

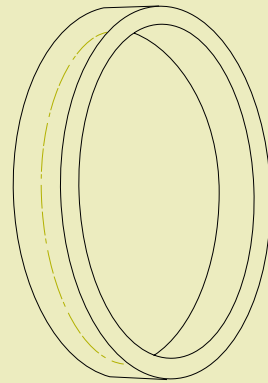
Model No.	Material	A	B	Fit Flange	Parts No.
ISO63-100DWCA	Aluminum	45	M8	ISO63	2122A211
				ISO80	
				ISO100	
				ISO160	
ISO160-250DWCA	Aluminum	45	M10	ISO200	2122A411
				ISO250	
				ISO320	
ISO320-500DWCA	Aluminum	60	M12	ISO400	2122A511
				ISO500	

## Double Claw Clamp



Model No.	Material	A	B	Quantity	Fit Flange	Parts No.
ISO63-250DCC316	316 S.S.	61.5	M10	4	ISO63	2123A361
				4	ISO80	
				4	ISO100	
				4	ISO160	
				6	ISO200	
				6	ISO250	
				8	ISO320	
ISO320-500DCC316	316 S.S.	76	M12	8	ISO400	2123A561
				12	ISO500	
				12	ISO630	
ISO630DCC316	316 S.S.	86	M12	12	ISO630	2123A661
ISO63-250DCC-ZP	Steel+Zn Plated	61.5	M10	4	ISO63	2123A331
				4	ISO80	
				4	ISO100	
				4	ISO160	
				6	ISO200	
				6	ISO250	
				8	ISO320	
ISO320-500DCC-ZP	Steel+Zn Plated	76	M12	8	ISO400	2123A531
				12	ISO500	
				12	ISO630	
ISO630DCC-ZP	Steel+Zn Plated	86	M12	12	ISO630	2123A631

## Cap



Model No.	Material	Fits Flange	Parts No.
ISO63CAP	Polyethylene	ISO63	5085G9
ISO80CAP	Polyethylene	ISO80	5085GU
ISO100CAP	Polyethylene	ISO100	5085HJ
ISO160CAP	Polyethylene	ISO160	5085JR
ISO200CAP	Polyethylene	ISO200	5085KU