

# Metso

Integrated solution with extensive application expertise

## Slurry pipe system



# Table of contents

The Slurry Pipe System ..... 3

Swivel Flange Hose ..... 4

Swivel Flange 5D Bend 90° ..... 9

Swivel Flange 5D Bend 45° ..... 13

Rubber Lined Steel Pipes ..... 17

Ceramic Swivel Flange Hose ..... 22

Ceramic Swivel Flange 5D Bend 90° ..... 27

Ceramic Swivel Flange 5D Bend 45° ..... 31

## The Slurry Pipe System

The slurry pipe system is designed for applications up to 40 bar (580PSI) and DN1000 mm (40"). This system comprises Swivel flange hoses and bends, as well as pipes and their ceramic-lined counterparts, tailored for the most demanding applications.



*Metso slurry pipe system*

### Swivel Flange Hoses

Swivel flange hoses are designed with built in gaskets and each end has a rotatable swivel flange. The rubber hose is flexible and can easily be adjusted to different angles, to a certain degree. For the recommended bend radius, please refer to the product specific pages.

### Rubber lined steel pipes

The rubber lined steel pipe is an alternative to the swivel hoses for the straighter sections of the slurry hose system. The rubber lined steel pipe is available in a custom length up to 10 meters. The rubber lined steel pipe doesn't need a support beam, it only requires support at each end.

### Swivel flange 5D bends

The Metso swivel 5D bends are designed for use in confined spaces where standard swivel hoses lack the flexibility needed. Fully interchangeable with 5D steel bends with longer lifetime and less tension in the pipe system. Due to the swivel bends, it is possible to bend or straighten to a variety of different angles. The swivel bends are designed with built in gaskets and each end has a rotatable swivel flange.

### Ceramic Swivel flange hoses and 5D bends

The ceramic swivel flange hoses and 5D bends are equipped with an octagon-shaped ceramic lining with smooth walls and low flow resistance. The intended area of use is in conjunction with pumping highly abrasive materials, and they are especially well-suited for mill discharge pumps or with demanding gravity flows.

<b>Standards</b>	<b>Specifications / Painting</b>
According to PED EN 13480	Surface preparation blasting grade: Sa 2.5
According to EN3834.	Primary Coat: EP (Zn (R)) 60/1
Flanges according to -EN1092-1 and ASME B16.5	Top Coat: Pur 120/2
Painting and surface treatment according to EN ISO 12944-4, ISO 8501-1 and EN ISO 12944-5	Painting system: EP (Zn (R)) PUR 180/3

# Swivel Flange Hose

## Slurry Pipe System

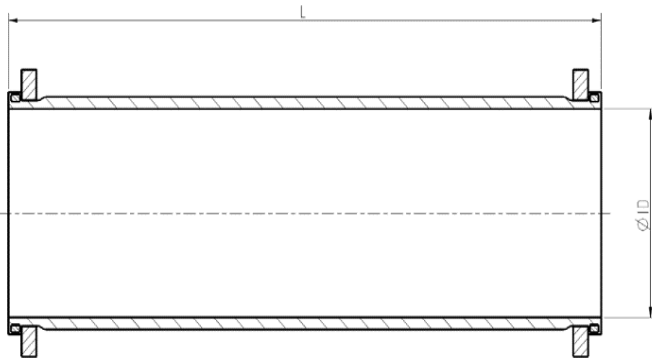
The Metso Swivel flange hose for hydraulic applications has a wear tube with rubber quality T-50 and is cord reinforced with a fully embedded galvanized steel wire spiral.



**Product Description:** The Metso Swivel flange hose for hydraulic applications has a wear tube with rubber quality T-50 & is cord reinforced with a fully embedded galvanized steel wire spiral.

**Area of use:** The pipe system is designed for pumping abrasive materials for short or long distances at high pressure. It is especially well-suited for mill discharge pumps, high pressure pumps and in tailing applications.

**Characteristics:** Thick long-life wear rubber with smooth walls and low flow resistance. Each end has a swivel flange designed to cater to high dynamic loads. The swivel hose forms an extremely reliable system which retains the free flow area without turbulence at the flanges.



**Technical description:** The swivel hoses are reinforced with cord and have an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. The hose is designed with built in gaskets and each end has a rotatable swivel flange with flange drilling according to customer specifications. The safety factor against bursting is 1.5 times the working pressure.

**Installation:** Quick and easy installation and designed to be used together with other slurry pipe system components.

### DIN Flanges

Operating Pressure 10 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose		
DN	Item Code	mm	mm	Bar	Mpa	EN 1092-1	kg/hose	kg/m		
100	489771-100-L	100	132	6	16	1.6	PN10 /PN16	1320	11	5
125	489771-125-L	125	158	6	16	1.6	PN10 /PN16	1580	13	8
150	489771-150-L	152	185	6	16	1.6	PN10 /PN16	1850	17	9
200	489770-200-L	202	240	6	10	1.0	PN10	2400	22	16
250	489770-250-L	254	285	6	10	1.0	PN10	2850	30	21
300	489770-300-L	303	345	6	10	1.0	PN10	3450	34	27
350	489770-350-L	332	405	10	10	1.0	PN10	4050	49	41
400	489770-400-L	383	453	10	10	1.0	PN10	4530	66	46
450	489770-450-L	434	503	10	10	1.0	PN10	5030	81	55
500	489770-500-L	485	558	10	10	1.0	PN10	5580	96	64
600	489770-600-L	585	657	10	10	1.0	PN10	6570	128	88
700	489770-700-L	671	772	12	10	1.0	PN10	7720	163	121
800	489770-800-L	771	875	12	10	1.0	PN10	8750	195	145
900	489770-900-L	870	975	12	10	1.0	PN10	9750	227	174
1000	489770-1000-L	970	1082	12	10	1.0	PN10	10820	260	209

Operating Pressure 16 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose		
DN	Item Code	mm	mm	Bar	Mpa	EN 1092-1	kg/hose	kg/m		
100	489771-100-L	100	132	6	16	1.6	PN10 /PN16	1320	11	6
125	489771-125-L	125	158	6	16	1.6	PN10 /PN16	1580	13	8
150	489771-150-L	152	185	6	16	1.6	PN10 /PN16	1850	17	10
200	489771-200-L	202	240	6	16	1.6	PN16	2400	23	18
250	489771-250-L	254	320	6	16	1.6	PN16	3200	34	23
300	489771-300-L	303	348	6	16	1.6	PN16	3480	44	30
350	489771-350-L	332	408	10	16	1.6	PN16	4080	65	45
400	489771-400-L	383	457	10	16	1.6	PN16	4570	82	51
450	489771-450-L	434	517	10	16	1.6	PN16	5170	106	61
500	489771-500-L	485	575	10	16	1.6	PN16	5750	144	70
600	489771-600-L	585	692	10	16	1.6	PN16	6920	223	97
700	489771-700-L	671	762	12	16	1.6	PN16	7620	283	133
800	489771-800-L	771	866	12	16	1.6	PN16	8660	340	160

900	489771-900-L	870	966	12	16	1.6	PN16	9660	397	191
1000	489771-1000-L	970	1080	12	16	1.6	PN16	10800	454	230

### Operating Pressure 25 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/hose	kg/m
100	489772-100-L	100	138	6	25	2.5	PN25	1380	14	7
125	489772-125-L	125	158	6	25	2.5	PN25	1580	19	9
150	489772-150-L	152	185	6	25	2.5	PN25	1850	23	11
200	489772-200-L	202	268	6	25	2.5	PN25	2680	32	19
250	489772-250-L	254	340	6	25	2.5	PN25	3400	46	25
300	489772-300-L	303	382	6	25	2.5	PN25	3820	60	33
350	489772-350-L	332	435	10	25	2.5	PN25	4350	92	50
400	489772-400-L	383	492	10	25	2.5	PN25	4920	125	56
450	489772-450-L	434	542	10	25	2.5	PN25	5420	153	67
500	489772-500-L	485	602	10	25	2.5	PN25	6020	190	77
600	489772-600-L	585	706	10	25	2.5	PN25	7060	273	106
700	489772-700-L	671	805	12	25	2.5	PN25	8050	334	146
800	489772-800-L	771	915	12	25	2.5	PN25	9150	402	175
900	489772-900-L	870	1009	12	25	2.5	PN25	10090	470	211
1000	489772-1000-L	970	1120	12	25	2.5	PN25	11200	538	253

### Operating Pressure 40 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/hose	kg/m
100	489889-100-L	100	155	6	40	4.0	PN40	1550	16	8
125	489889-125-L	125	185	6	40	4.0	PN40	1250	21	11
150	489889-150-L	152	208	6	40	4.0	PN40	2080	27	13
200	489889-200-L	202	272	6	40	4.0	PN40	2720	38	23
250	489889-250-L	254	330	6	40	4.0	PN40	3300	54	30
300	489889-300-L	303	395	6	40	4.0	PN40	3950	70	39
350	489889-350-L	332	452	10	40	4.0	PN40	4520	109	60
400	489889-400-L	383	521	10	40	4.0	PN40	5210	148	67
450	489889-450-L	434	546	10	40	4.0	PN40	5460	181	80

500	489889-500-L	485	600	10	40	4.0	PN40	6000	224	93
600	489889-600-L	585	714	10	40	4.0	PN40	7140	324	128

### ANSI Flanges

Operating Pressure 150 psi

Pipe	Size		ID	OD	Wear tube	Operating pressure		Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose
IN	DN	Item Code	mm	mm	mm	bar	psi		mm	lbs/hose	lbs/m
4	100	489773-100-L	100	143	6	10	150	150	1430	27	14
5	125	489773-125-L	125	158	6	10	150	150	1580	33	18
6	150	489773-150-L	152	188	6	10	150	150	1880	39	24
8	200	489773-200-L	202	246	6	10	150	150	2460	62	43
10	250	489773-250-L	254	303	6	10	150	150	3030	85	56
12	300	489773-300-L	303	373	6	10	150	150	3730	129	72
14	350	489773-350-L	332	412	10	10	150	150	4120	171	109
16	400	489773-400-L	383	476	10	10	150	150	4760	219	123
18	450	489773-450-L	434	508	10	10	150	150	5080	245	147
20	500	489773-500-L	485	565	10	10	150	150	5650	306	171
24	600	489773-600-L	585	674	10	10	150	150	6740	423	235
28	700	489773-700-L	671	789	12	10	150	150	7890	623	323
32	800	489773-800-L	771	888	12	10	150	150	8880	749	387
36	900	489773-900-L	870	996	12	10	150	150	9960	875	464
40	1000	489773-1000-L	970	1110	12	10	150	150	11100	1001	558

Operating Pressure 285 psi

Pipe	Size		ID	OD	Wear tube	Operating pressure		Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose
IN	DN	Item Code	mm	mm	mm	bar	psi		mm	lbs/hose	lbs/m
4	100	489897-100-L	100	143	6	20	285	150	1430	27	14
5	125	489897-125-L	125	158	6	20	285	150	1580	33	18
6	150	489897-150-L	152	188	6	20	285	150	1880	39	24
8	200	489897-200-L	202	246	6	20	285	150	2460	62	43
10	250	489897-250-L	254	303	6	20	285	150	3030	85	56
12	300	489897-300-L	303	373	6	20	285	150	3730	129	72
14	350	489897-350-L	332	412	10	20	285	150	4120	171	109
16	400	489897-400-L	383	476	10	20	285	150	4760	219	123

18	450	489897-450-L	434	508	10	20	285	150	5080	245	147
20	500	489897-500-L	485	565	10	20	285	150	5650	306	171
24	600	489897-600-L	585	674	10	20	285	150	6740	423	235
28	700	489897-700-L	671	789	12	20	285	150	7890	623	323
32	800	489897-800-L	771	888	12	20	285	150	8880	749	387
36	900	489897-900-L	870	996	12	20	285	150	9960	875	464
40	1000	489897-1000-L	970	1110	12	20	285	150	11100	1001	558

### Operating Pressure 580 psi

Pipe	Size	ID	OD	Wear tube	Operating pressure	Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose		
IN	DN	Item Code	mm	mm	mm	bar	psi	mm	lbs/hose	lbs/m	
4	100	489774-100-L	100	160	6	40	580	300	1000	36	17
5	125	489774-127-L	125	185	6	40	580	300	1250	37	24
6	150	489774-150-L	152	217	6	40	580	300	2170	60	28
8	200	489774-200-L	202	271	6	40	580	300	2710	84	51
10	250	489774-250-L	254	323	6	40	580	300	3230	119	67
12	300	489774-300-L	303	381	6	40	580	300	3810	155	86
14	350	489774-350-L	332	444	10	40	580	300	4440	240	131
16	400	489774-400-L	383	512	10	40	580	300	5120	327	147
18	450	489774-450-L	434	554	10	40	580	300	5540	399	176
20	500	489774-500-L	485	611	10	40	580	300	6110	495	205
24	600	489774-600-L	585	727	10	40	580	300	7270	713	282



# Swivel Flange 5D Bend 90°

## Slurry Pipe System

The Metso swivel flange 5D bends are used for slurry handling in heavy wear applications where high wear resistance is required. This is usually relevant in the mining processing industry, coal refinement plants and power plants.

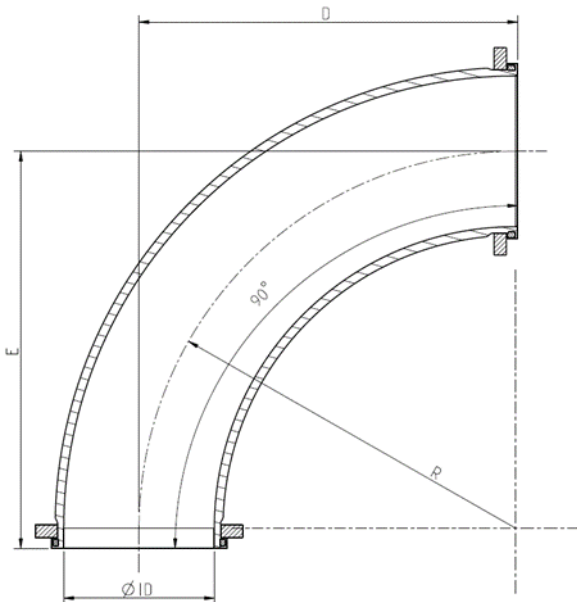


Swivel Flange 5D Bend 90 PTD06-27EN

**Product Description:** The Metso swivel flange hose for hydraulic applications has a wear tube with rubber quality T-50 & is cord reinforced with a fully embedded galvanized steel wire spiral.

**Area of use:** The Metso swivel 5D bends are intended for use in tight spaces where ordinary swivel hoses cannot be bent enough. Fully interchangeable with 5D steel bends where longer lifetime and less tension in the pipe system. Due to the flexible bends, it is possible to bend or straighten to a variety of different angles.

**Characteristics:** Thick long-life wear rubber with smooth walls and low flow resistance. Each end has a swivel flange designed to cater to high dynamic loads. The swivel hose forms an extremely reliable system which retains the free flow area without turbulence at the flanges.



**Technical description:** The swivel hoses are reinforced with cord and have an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. The bends are designed with built in gaskets and each end has a rotatable swivel flange with flange drilling according to customer specifications. The safety factor against bursting is 1.5 times the working pressure.

**Installation:** Quick and easy installation and designed to be used together with other slurry pipe system components.

### DIN Flanges

Operating Pressure 10 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489804-100	100	132	10	16	1.6	PN10 /PN16	276 x 322	270	13
125	489804-125	125	158	10	16	1.6	PN10 /PN16	336 x 385	330	16
150	489804-150	152	185	10	16	1.6	PN10 /PN16	396 x 445	390	23
200	489803-200	202	240	10	10	1.0	PN10	516 x 572	510	35
250	489803-250	254	295	10	10	1.0	PN10	658 x 718	650	51
300	489803-300	303	345	10	10	1.0	PN10	778 x 838	770	67
350	489803-350	332	405	10	10	1.0	PN10	858 x 918	850	104
400	489803-400	383	475	10	10	1.0	PN10	978 x 1042	970	136
450	489803-450	434	520	10	10	1.0	PN10	1130 x 1194	1122	178
500	489803-500	485	558	10	10	1.0	PN10	1253 x 1320	1245	221
600	489803-600	585	657	10	10	1.0	PN10	1533 x 1607	1525	338
700	489803-700	671	772	12	10	1.0	PN10	1786 x 1863	1778	501
800	489803-800	771	875	12	10	1.0	PN10	2041 x 2129	2033	658
900	489803-900	870	975	12	10	1.0	PN10	2293 x 2384	2285	852
1000	489803-1000	970	1082	12	10	1.0	PN10	2548 x 2645	2540	1093

Operating Pressure 16 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	Kg
100	489804-100	100	132	10	16	1.6	PN10 /PN16	276 x 322	270	13
125	489804-125	125	158	10	16	1.6	PN10 /PN16	336 x 385	330	16
150	489804-150	152	185	10	16	1.6	PN10 /PN16	396 x 445	390	23
200	489804-200	202	240	10	16	1.6	PN16	516 x 572	510	37
250	489804-250	254	293	10	16	1.6	PN16	658 x 718	650	58
300	489804-300	303	348	10	16	1.6	PN16	778 x 838	770	80
350	489804-350	332	408	10	16	1.6	PN16	858 x 918	850	125
400	489804-400	383	457	10	16	1.6	PN16	978 x 1042	970	159
450	489804-450	434	517	10	16	1.6	PN16	1130 x 1194	1122	212
500	489804-500	485	575	10	16	1.6	PN16	1253 x 1320	1245	281
600	489804-600	585	692	10	16	1.6	PN16	1533 x 1607	1525	455

### Operating Pressure 25 bar

Size		ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489805-100	100	155	10	25	2.5	PN25	276 x 322	270	17
125	489805-125	125	185	10	25	2.5	PN25	336 x 385	330	23
150	489805-150	152	208	10	25	2.5	PN25	396 x 445	390	30
200	489805-200	202	268	10	25	2.5	PN25	516 x 572	510	48
250	489805-250	254	322	10	25	2.5	PN25	658 x 718	650	72
300	489805-300	303	382	10	25	2.5	PN25	778 x 838	770	99

### ANSI Flanges

#### Operating Pressure 150 psi

Pipe	Size	ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight
IN	DN	Item Code	mm	mm	bar	psi	ANSI B16.5	mm	mm	lbs
4	100	489806-100	100	143	10	150	150	276 x 322	270	33
5	125	489806-125	125	158	10	150	150	336 x 385	330	40
6	150	489806-150	152	188	10	150	150	396 x 445	390	52
8	200	489806-200	202	260	10	150	150	516 x 572	510	93
10	250	489806-250	254	303	10	150	150	658 x 718	650	137
12	300	489806-300	303	373	10	150	150	778 x 838	770	208
14	350	489806-350	332	412	10	150	150	858 x 918	850	304
16	400	489806-400	383	476	10	150	150	978 x 1042	970	389
18	450	489806-450	434	508	10	150	150	1130 x 1194	1122	480
20	500	489806-500	485	565	10	150	150	1253 x 1320	1245	582
24	600	489806-600	585	674	10	150	150	1533 x 1607	1525	888
28	700	489806-700	671	789	12	150	150	1786 x 1863	1778	1368
32	800	489806-800	771	888	12	150	150	2041 x 2129	2033	1769
36	900	489806-900	870	996	12	150	150	2293 x 2384	2285	2250
40	1000	489806-1000	970	1110	12	150	150	2548 x 2645	2540	2837

Operating Pressure 285-230 psi

Pipe IN	Size		ID mm	OD mm	Wear tube mm	Operating pressure		Flange Drilling ANSI B16.5	D x E mm	R mm	Weight lbs
	DN	Item Code				bar	psi				
4	100	489898-100	100	143	10	20	285	150	276 x 322	270	33
5	125	489898-125	125	158	10	20	285	150	336 x 385	330	42
6	150	489898-150	152	188	10	20	285	150	396 x 445	390	52
8	200	489898-200	202	246	10	20	285	150	516 x 572	510	93
10	250	489898-250	254	303	10	20	285	150	658 x 718	650	137
12	300	489898-300	303	373	10	20	285	150	778 x 838	770	208
14	350	489898-350	332	412	10	16	230	150	858 x 918	850	304
16	400	489898-400	383	476	10	16	230	150	978 x 1042	970	389
18	450	489898-450	434	508	10	16	230	150	1130 x 1194	1122	480
20	500	489898-500	485	565	10	16	230	150	1253 x 1320	1245	609
24	600	489898-600	585	674	10	16	230	150	1533 x 1607	1525	934

# Swivel Flange 5D Bend 45°

## Slurry Pipe System

The Metso swivel flange 5D bends are used for slurry handling in heavy wear applications where high wear resistance is required. This is usually relevant in the mining processing industry, coal refinement plants and power plants.

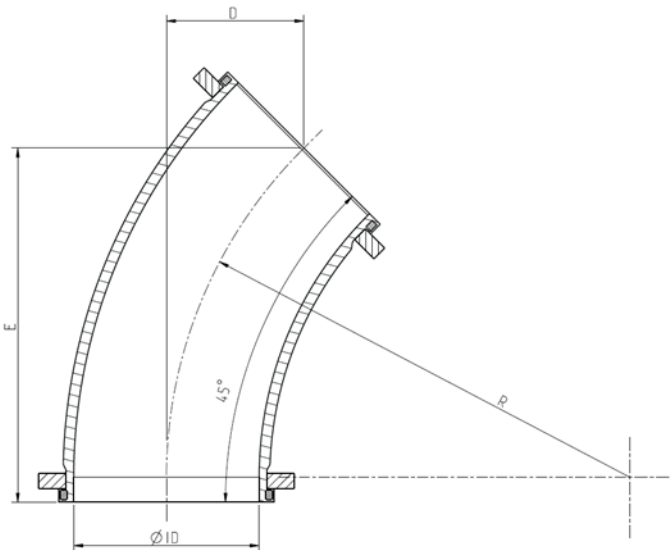


Swivel Flange 5D Bend 45 PTD06-26EN

**Product Description:** The Metso Swivel flange bend for hydraulic applications has a wear tube with rubber quality T-40 & is cord reinforced with a fully embedded galvanized steel wire spiral.

**Area of use:** The Metso swivel 5D bends are intended for use in tight spaces where ordinary swivel hoses cannot be bent enough. They are fully interchangeable with 5D steel bends where longer lifetime and less tension in the pipe system is needed. Due to the flexible bends, it is possible to bend or straighten to a variety of different angles.

**Characteristics:** Thick long-life wear rubber with smooth walls and low flow resistance. Each end has a swivel flange designed to cater to high dynamic loads. The swivel hose forms an extremely reliable system which retains the free flow area without turbulence at the flanges.



**Technical description:** The swivel hoses are reinforced with cord and have an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. The bends are designed with built in gaskets and each end has a rotatable swivel flange with flange drilling according to customer specifications. The safety factor against bursting is 1.5 times the working pressure.

**Installation:** Quick and easy installation and designed to be used together with other slurry pipe system components.

### DIN Flanges

Operating Pressure 10 bar

Size	ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489799-100	100	132	10	16	1.6	PN10 /PN16	83 x 274	270	9
125	489799-125	125	158	10	16	1.6	PN10 /PN16	101 x 293	330	14
150	489799-150	152	185	10	16	1.6	PN10 /PN16	118 x 335	390	17
200	489798-200	202	240	10	10	1.0	PN10	154 x 427	510	27
250	489798-250	254	295	10	10	1.0	PN10	196 x 533	650	38
300	489798-300	303	345	10	10	1.0	PN10	231 x 618	770	48
350	489798-350	332	405	10	10	1.0	PN10	255 x 675	850	74
400	489798-400	383	480	10	10	1.0	PN10	290 x 764	970	97
450	489798-450	434	525	10	10	1.0	PN10	334 x 871	1122	123
500	489798-500	485	558	10	10	1.0	PN10	370 x 961	1245	152
600	489798-600	585	657	10	10	1.0	PN10	452 x 1166	1525	214
700	489798-700	671	772	12	10	1.0	PN10	526 x 1348	1778	308
800	489798-800	771	875	12	10	1.0	PN10	601 x 1539	2033	398
900	489798-900	870	975	12	10	1.0	PN10	675 x 1720	2285	505
1000	489798-1000	970	1082	12	10	1.0	PN10	750 x 1907	2540	634

Operating Pressure 16 bar

Size	ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489799-100	100	132	10	16	1.6	PN10 /PN16	83 x 274	270	9
125	489799-125	125	158	10	16	1.6	PN10 /PN16	101 x 293	330	14
150	489799-150	152	185	10	16	1.6	PN10 /PN16	118 x 335	390	17
200	489799-200	202	240	10	16	1.6	PN16	154 x 427	510	29
250	489799-250	254	293	10	16	1.6	PN16	196 x 533	650	43
300	489799-300	303	348	10	16	1.6	PN16	231 x 618	770	60
350	489799-350	332	408	10	16	1.6	PN16	255 x 675	850	92
400	489799-400	383	457	10	16	1.6	PN16	290 x 764	970	116
450	489799-450	434	517	10	16	1.6	PN16	334 x 871	1122	152
500	489799-500	485	575	10	16	1.6	PN16	370 x 961	1245	206
600	489799-600	585	692	10	16	1.6	PN16	452 x 1166	1525	317

### Operating Pressure 25 bar

Size		ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489800-100	100	155	10	25	2.5	PN25	83 x 274	270	15
125	489800-125	125	185	10	25	2.5	PN25	101 x 293	330	21
150	489800-150	152	208	10	25	2.5	PN25	118 x 335	390	27
200	489800-200	202	268	10	25	2.5	PN25	154 x 427	510	40
250	489800-250	254	322	10	25	2.5	PN25	196 x 533	650	59
300	489800-300	303	382	10	25	2.5	PN25	231 x 618	770	79

### ANSI Flanges

#### Operating Pressure 150 psi

Pipe	Size	ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight
IN	DN	Item Code	mm	mm	bar	psi	ANSI B16.5	mm	mm	lbs
4	100	489801-100	100	143	10	150	150	83 x 274	270	30
5	125	489801-125	125	158	10	150	150	101 x 293	330	36
6	150	489801-150	152	188	10	150	150	118 x 335	390	45
8	200	489801-200	202	246	10	150	150	154 x 427	510	76
10	250	489801-250	254	303	10	150	150	196 x 533	650	109
12	300	489801-300	303	373	10	150	150	231 x 618	770	165
14	350	489801-350	332	412	10	150	150	255 x 675	850	231
16	400	489801-400	383	476	10	150	150	290 x 764	970	296
18	450	489801-450	434	508	10	150	150	334 x 871	1122	352
20	500	489801-500	485	565	10	150	150	370 x 961	1245	444
24	600	489801-600	585	674	10	150	150	452 x 1166	1525	656
28	700	489801-700	671	789	12	150	150	526 x 1348	1778	996
32	800	489801-800	771	888	12	150	150	601 x 1539	2033	1259
36	900	489801-900	870	996	12	150	150	675 x 1720	2285	1563
40	1000	489801-1000	970	1110	12	150	150	750 x 1907	2540	1920

Operating Pressure 285-230 psi

Pipe IN	Size		ID mm	OD mm	Wear tube mm	Operating pressure		Flange Drilling ANSI B16.5	D x E mm	R mm	Weight lbs
	DN	Item Code				bar	psi				
4	100	489899-100	100	143	10	20	285	150	83 x 274	270	30
5	125	489899-125	125	158	10	20	285	150	101 x 293	330	36
6	150	489899-150	152	188	10	20	285	150	118 x 335	390	45
8	200	489899-200	202	246	10	20	285	150	154 x 427	510	76
10	250	489899-250	254	303	10	20	285	150	196 x 533	650	109
12	300	489899-300	303	373	10	20	285	150	231 x 618	770	165
14	350	489899-350	332	412	10	16	230	150	255 x 675	850	231
16	400	489899-400	383	476	10	16	230	150	290 x 764	970	296
18	450	489899-450	434	508	10	16	230	150	334 x 871	1122	352
20	500	489899-500	485	565	10	16	230	150	370 x 961	1245	444
24	600	489899-600	585	674	10	16	230	150	452 x 1166	1525	656





### DIN Flanges

Operating Pressure 10 bar

Size		ID	OD	Wear tube	Operating pressure	Flange Drilling	Flanges	Pipe	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	kg/pipe	kg/m
100	489792-100-L	100	114.3	5	16	1.6	PN10 /PN16	11	9
125	489792-125-L	125	139,7	5	16	1.6	PN10 /PN16	12	11
150	489792-150-L	152	168.3	5	16	1.6	PN10 /PN16	17	16
200	489791-200-L	202	219.1	5	10	1.0	PN10	22	23
250	489791-250-L	254	273	5	10	1.0	PN10	30	34
300	489791-300-L	303	323.9	5	10	1.0	PN10	34	49
350	489791-350-L	332	355.6	6	10	1.0	PN10	49	55
400	489791-400-L	383	406.4	6	10	1.0	PN10	66	63
450	489791-450-L	434	457	6	10	1.0	PN10	81	71
500	489791-500-L	485	508	6	10	1.0	PN10	96	79
600	489791-600-L	585	610	6	10	1.0	PN10	128	106
700	489791-700-L	671	711	12	10	1.0	PN10	163	167
800	489791-800-L	771	813	12	10	1.0	PN10	195	206
900	489791-900-L	870	914	12	10	1.0	PN10	227	258
1000	489791-1000-L	970	1016	12	10	1.0	PN10	260	312

Operating Pressure 16 bar

Size		ID	OD	Wear tube	Operating pressure	Flange Drilling	Flanges	Pipe	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	kg/pipe	kg/m
100	489792-100-L	100	114.3	5	16	1.6	PN10 /PN16	11	9
125	489792-125-L	125	139.7	5	16	1.6	PN10 /PN16	12	11
150	489792-150-L	152	168.3	5	16	1.6	PN10 /PN16	17	16
200	489792-200-L	202	219.1	5	16	1.6	PN16	23	23
250	489792-250-L	254	273	5	16	1.6	PN16	34	34
300	489792-300-L	303	323.9	5	16	1.6	PN16	44	49
350	489792-350-L	332	355.6	6	16	1.6	PN16	65	55
400	489792-400-L	383	406.4	6	16	1.6	PN16	82	63
450	489792-450-L	434	457	6	16	1.6	PN16	106	71
500	489792-500-L	485	508	6	16	1.6	PN16	144	79
600	489792-600-L	585	610	6	16	1.6	PN16	223	106
700	489792-700-L	671	711	12	16	1.6	PN16	282	167

800	489792-800-L	771	813	12	16	1.6	PN16	340	206
900	489792-900-L	870	914	12	16	1.6	PN16	397	258
1000	489792-1000-L	970	1016	12	16	1.6	PN16	454	312

### Operating Pressure 25 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Flanges	Pipe		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	kg/pipe	kg/m
100	489793-100-L	100	114.3	5	25	2.5	PN25	14	9
125	489793-125-L	125	139.7	5	25	2.5	PN25	19	11
150	489793-150-L	152	168.3	5	25	2.5	PN25	23	16
200	489793-200-L	202	219.1	5	25	2.5	PN25	32	23
250	489793-250-L	254	273	5	25	2.5	PN25	46	34
300	489793-300-L	303	323.9	5	25	2.5	PN25	60	49
350	489793-350-L	332	355.6	6	25	2.5	PN25	92	55
400	489793-400-L	383	406.4	6	25	2.5	PN25	125	63
450	489793-450-L	434	457	6	25	2.5	PN25	153	71
500	489793-500-L	485	508	6	25	2.5	PN25	190	79
600	489793-600-L	585	610	6	25	2.5	PN25	273	106
700	489793-700-L	671	711	12	25	2.5	PN25	334	167
800	489793-800-L	771	813	12	25	2.5	PN25	402	206
900	489793-900-L	870	914	12	25	2.5	PN25	470	258
1000	489793-1000-L	970	1016	12	25	2.5	PN25	538	312

### Operating Pressure 40 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Flanges	Pipe		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	kg/pipe	kg/m
100	489890-100-L	100	114.3	5	40	4.0	PN40	16	13
125	489890-125-L	125	139.7	5	40	4.0	PN40	19	17
150	489890-150-L	152	168.3	5	40	4.0	PN40	27	24
200	489890-200-L	202	219.1	5	40	4.0	PN40	38	34
250	489890-250-L	254	273	5	40	4.0	PN40	54	51
300	489890-300-L	303	323.9	5	40	4.0	PN40	70	74
350	489890-350-L	332	355.6	6	40	4.0	PN40	109	83
400	489890-400-L	383	406.4	6	40	4.0	PN40	148	95
450	489890-450-L	434	457	6	40	4.0	PN40	181	107
500	489890-500-L	485	508	6	40	4.0	PN40	224	119

600	489890-600-L	585	610	6	40	4.0	PN40	324	158
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### ANSI Flanges

Operating Pressure 150 psi

Pipe IN	Size DN	Item Code	ID mm	OD mm	Wear tube mm	Operating pressure		Flange Drilling ANSI B16.5	Flanges lbs/pipe	Pipe lbs/m
						bar	psi			
4	100	489900-100-L	100	114.3	5	10	150	150	27	20
5	125	489900-125-L	125	139.7	5	10	150	150	31	24
6	150	489900-150-L	152	168.3	5	10	150	150	39	35
8	200	489900-200-L	202	219.1	5	10	150	150	62	50
10	250	489900-250-L	254	273	5	10	150	150	85	75
12	300	489900-300-L	303	323.9	5	10	150	150	129	108
14	350	489900-350-L	332	355.6	6	10	150	150	171	122
16	400	489900-400-L	383	406.4	6	10	150	150	219	139
18	450	489900-450-L	434	457	6	10	150	150	245	157
20	500	489900-500-L	485	508	6	10	150	150	306	175
24	600	489900-600-L	585	610	6	10	150	150	423	233
28	700	489900-700-L	671	711	12	10	150	150	623	367
32	800	489900-800-L	771	813	12	10	150	150	749	455
36	900	489900-900-L	870	914	12	10	150	150	875	570
40	1000	489900-1000-L	970	1016	12	10	150	150	1001	688

Operating Pressure 285 psi

Pipe IN	Size DN	Item Code	ID mm	OD mm	Wear tube mm	Operating pressure		Flange Drilling ANSI B16.5	Flanges lbs/pipe	Pipe lbs/m
						bar	psi			
4	100	489795-100-L	100	114.3	5	20	285	150	27	20
5	125	489795-125-L	125	139.7	5	20	285	150	31	32
6	150	489795-150-L	152	168.3	5	20	285	150	39	35
8	200	489795-200-L	202	219.1	5	20	285	150	62	50
10	250	489795-250-L	254	273	5	20	285	150	85	75
12	300	489795-300-L	303	323.9	5	20	285	150	129	108
14	350	489795-350-L	332	355.6	6	20	285	150	171	122
16	400	489795-400-L	383	406.4	6	20	285	150	219	139
18	450	489795-450-L	434	457	6	20	285	150	245	157
20	500	489795-500-L	485	508	6	20	285	150	306	175

24	600	489795-600-L	585	610	6	20	285	150	423	233
28	700	489795-700-L	671	711	12	20	285	150	623	367
32	800	489795-800-L	771	813	12	20	285	150	749	455
36	900	489795-900-L	870	914	12	20	285	150	875	570
40	1000	489795-1000-L	970	1016	12	20	285	150	1001	688

### Operating Pressure 580 psi

Pipe	Size		ID	OD	Wear tube	Operating pressure		Flange Drilling	Flanges	Pipe
IN	DN	Item Code	mm	mm	mm	bar	psi	ANSI B16.5	lbs/pipe	lbs/m
4	100	489891-100-L	100	114.3	5	40	580	300	32	30
5	125	489891-125-L	125	139.7	5	40	580	300	37	37
6	150	489891-150-L	152	168.3	5	40	580	300	45	52
8	200	489891-200-L	202	219.1	5	40	580	300	72	75
10	250	489891-250-L	254	273	5	40	580	300	99	113
12	300	489891-300-L	303	323.9	5	40	580	300	152	162
14	350	489891-350-L	332	355.6	6	40	580	300	201	182
16	400	489891-400-L	383	406.4	6	40	580	300	258	209
18	450	489891-450-L	434	457	6	40	580	300	288	235
20	500	489891-500-L	485	508	6	40	580	300	360	262
24	600	489891-600-L	585	610	6	40	580	300	500	349

# Ceramic Swivel Flange Hose

## Slurry Pipe System

The Metso ceramic swivel flange hose for hydraulic applications has a heavy duty wear tube of natural rubber with built-in ceramic.

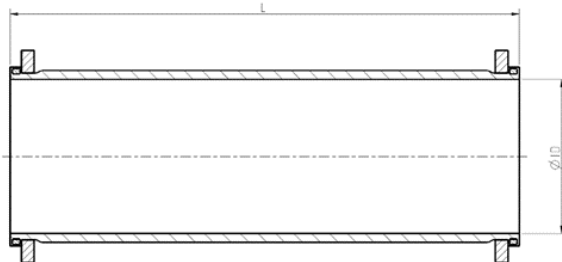


Ceramic Swivel Flange Hose PTD06-24EN

**Product Description:** The Metso ceramic swivel flange hose for hydraulic applications has a heavy-duty wear tube of natural rubber with built-in ceramic.

**Area of use:** The intended area of use is in conjunction with pumping highly abrasive materials for short or long distances or at high pressure. It is especially well-suited for mill discharge pumps or at demanding gravity flows with sharp particles.

**Characteristics:** The ceramic hose is equipped with a hexagon shaped ceramic lining with a smooth surface and low flow resistance. Each end has a swivel flange designed to cater to high dynamic loads. The swivel ceramic hose forms an extremely reliable system, which retains the free flow area without turbulence at the flanges.



**Technical description:**

The swivel hoses are lined 180° with hexagon shaped ceramic inserts reinforced with cord and an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. Each end has a rotatable swivel flange with flange drilling and built-in rubber gaskets, with delivery according to customer specifications. The safety factor against bursting is 1.5 times the working pressure.

*The swivel flange hoses with a lining of 360 deg are also available for order.*

**Installation:** The ceramic swivel hose is designed to be used together with other slurry pipe system components. The length of each hose is delivered according to customer specifications.

### DIN Flanges

Operating Pressure 10 bar

Size		ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/hose	kg/m
100	489771X-100-L	100	132	6	16	1.6	PN10 /PN16	1320	11	7
125	489771X-125-L	125	158	6	16	1.6	PN10 /PN16	1580	13	10
150	489771X-150-L	152	185	6	16	1.6	PN10 /PN16	1850	17	12
200	489770X-200-L	202	240	6	10	1.0	PN10	2400	22	19
250	489770X-250-L	254	285	6	10	1.0	PN10	2850	30	25
300	489770X-300-L	303	345	6	10	1.0	PN10	3450	34	32
350	489770X-350-L	332	405	10	10	1.0	PN10	4050	49	49
400	489770X-400-L	383	453	10	10	1.0	PN10	4530	66	55
450	489770X-450-L	434	503	10	10	1.0	PN10	5030	81	66
500	489770X-500-L	485	558	10	10	1.0	PN10	5580	96	77
600	489770X-600-L	585	657	10	10	1.0	PN10	6570	128	106
700	489770X-700-L	671	772	12	10	1.0	PN10	7720	163	145
800	489770X-800-L	771	875	12	10	1.0	PN10	8750	195	174
900	489770X-900-L	870	975	12	10	1.0	PN10	9750	227	209
1000	489770X-1000-L	970	1082	12	10	1.0	PN10	10820	260	251

Operating Pressure 16 bar

Size		ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose	
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/hose	kg/m
100	489771X-100-L	100	132	6	16	1.6	PN10 /PN16	1320	11	7
125	489771X -125-L	125	158	6	16	1.6	PN10 /PN16	1580	13	10
150	489771X -150-L	152	185	6	16	1.6	PN10 /PN16	1850	17	12
200	489771X -200-L	202	240	6	16	1.6	PN16	2400	23	21
250	489771X -250-L	254	320	6	16	1.6	PN16	3200	34	28
300	489771X -300-L	303	348	6	16	1.6	PN16	3480	44	36
350	489771X -350-L	332	408	10	16	1.6	PN16	4080	65	54
400	489771X -400-L	383	457	10	16	1.6	PN16	4570	82	61
450	489771X -450-L	434	517	10	16	1.6	PN16	5170	106	73
500	489771X -500-L	485	575	10	16	1.6	PN16	5750	144	84
600	489771X -600-L	585	692	10	16	1.6	PN16	6920	223	116
700	489771X -700-L	671	762	12	16	1.6	PN16	7620	283	160
800	489771X -800-L	771	866	12	16	1.6	PN16	8660	340	191

900	489771X -900-L	870	966	12	16	1.6	PN16	9660	397	230
1000	489771X -1000-L	970	1080	12	16	1.6	PN16	10800	454	276

### Operating Pressure 25 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Hose		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/hose	kg/m
100	489772X-100-L	100	138	6	25	2.5	PN25	1380	14	9
125	489772X-125-L	125	158	6	25	2.5	PN25	1580	19	12
150	489772X-150-L	152	185	6	25	2.5	PN25	1850	23	14
200	489772X-200-L	202	268	6	25	2.5	PN25	2680	32	23
250	489772X-250-L	254	340	6	25	2.5	PN25	3400	46	30
300	489772X-300-L	303	382	6	25	2.5	PN25	3820	60	39
350	489772X-350-L	332	435	10	25	2.5	PN25	4350	92	60
400	489772X-400-L	383	492	10	25	2.5	PN25	4920	125	67
450	489772X-450-L	434	542	10	25	2.5	PN25	5420	153	80
500	489772X-500-L	485	602	10	25	2.5	PN25	6020	190	93
600	489772X-600-L	585	706	10	25	2.5	PN25	7060	273	128
700	489772X-700-L	671	805	12	25	2.5	PN25	8050	334	176
800	489772X-800-L	771	915	12	25	2.5	PN25	9150	402	211
900	489772X-900-L	870	1009	12	25	2.5	PN25	10090	470	253
1000	489772X-1000-L	970	1120	12	25	2.5	PN25	11200	538	303

### Operating Pressure 40 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	Bending radius	Flanges	Pipe		
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	kg/pipe	kg/m
100	489889X-100-L	100	155	6	40	4.0	PN40	1550	16	11
125	489889X-125-L	125	185	6	40	4.0	PN40	1850	21	14
150	489889X-150-L	152	208	6	40	4.0	PN40	2080	27	27
200	489889X-200-L	202	272	6	40	4.0	PN40	2720	38	28
250	489889X-250-L	254	330	6	40	4.0	PN40	3300	54	37
300	489889X-300-L	303	395	6	40	4.0	PN40	3950	70	47
350	489889X-350-L	332	452	10	40	4.0	PN40	4520	109	71
400	489889X-400-L	383	521	10	40	4.0	PN40	5210	148	80
450	489889X-450-L	434	546	10	40	4.0	PN40	5460	181	96



500	489889X-500-L	485	600	10	40	4.0	PN40	6000	224	112
600	489889X-600-L	585	714	10	40	4.0	PN40	7140	324	153

### ANSI Flanges

Operating Pressure 150 psi

Pipe	Size		OD	Wear tube	Operating pressure	Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose		
IN	DN	Item Code	mm	mm	bar	psi	mm	lbs/hose	lbs/m		
4	100	489773X-100-L	100	143	6	10	150	150	1430	27	14
5	125	489773X-125-L	125	158	6	10	150	150	1580	33	22
6	150	489773X-150-L	152	188	6	10	150	150	1880	39	26
8	200	489773X-200-L	202	246	6	10	150	150	2460	62	43
10	250	489773X-250-L	254	303	6	10	150	150	3030	85	56
12	300	489773X-300-L	303	373	6	10	150	150	3730	129	72
14	350	489773X-350-L	332	412	10	10	150	150	4120	171	109
16	400	489773X-400-L	383	476	10	10	150	150	4760	219	123
18	450	489773X-450-L	434	508	10	10	150	150	5080	245	147
20	500	489773X-500-L	485	565	10	10	150	150	5650	306	171
24	600	489773X-600-L	585	674	10	10	150	150	6740	423	235
28	700	489773X-700-L	671	789	12	10	150	150	7890	623	323
32	800	489773X-800-L	771	888	12	10	150	150	8880	749	387
36	900	489773X-900-L	870	996	12	10	150	150	9960	875	464
40	1000	489773X-1000-L	970	1110	12	10	150	150	11100	1001	558

Operating Pressure 285 psi

Pipe	Size		ID	OD	Wear tube	Operating pressure	Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose	
IN	DN	Item Code	mm	mm	mm	bar	psi	mm	lbs/hose	lbs/m	
4	100	489897-100-L	100	143	6	20	285	150	1430	27	16
5	125	489897-125-L	125	158	6	20	285	150	1580	33	24
6	150	489897-150-L	152	188	6	20	285	150	1880	39	29
8	200	489897-200-L	202	246	6	20	285	150	2460	62	47
10	250	489897-250-L	254	303	6	20	285	150	3030	85	62
12	300	489897-300-L	303	373	6	20	285	150	3730	129	79
14	350	489897-350-L	332	412	10	20	285	150	4120	171	120

16	400	489897-400-L	383	476	10	20	285	150	4760	219	135
18	450	489897-450-L	434	508	10	20	285	150	5080	245	161
20	500	489897-500-L	485	565	10	20	285	150	5650	306	188
24	600	489897-600-L	585	674	10	20	285	150	6740	423	258
28	700	489897-700-L	671	789	12	20	285	150	7890	623	355
32	800	489897-800-L	771	888	12	20	285	150	8880	749	425
36	900	489897-900-L	870	996	12	20	285	150	9960	875	511
40	1000	489897-1000-L	970	1110	12	20	285	150	11100	1001	613

### Operating Pressure 580 psi

Pipe	Size	ID	OD	Wear tube	Operating pressure	Flange Drilling ANSI B16.5	Bending radius	Flanges	Hose		
IN	DN	Item Code	mm	mm	mm	bar	psi	mm	lbs/hose	lbs/m	
4	100	489774X-100-L	100	160	6	40	580	300	1600	36	19
5	125	489774X-125-L	125	185	6	40	580	300	1850	37	29
6	150	489774X-150-L	152	217	6	40	580	300	2170	60	35
8	200	489774X-200-L	202	271	6	40	580	300	2710	84	56
10	250	489774X-250-L	254	323	6	40	580	300	3230	119	74
12	300	489774X-300-L	303	381	6	40	580	300	3810	155	95
14	350	489774X-350-L	332	444	10	40	580	300	4440	240	144
16	400	489774X-400-L	383	512	10	40	580	300	5120	327	162
18	450	489774X-450-L	434	554	10	40	580	300	5540	399	194
20	500	489774X-500-L	485	611	10	40	580	300	6110	495	225
24	600	489774X-600-L	585	727	10	40	580	300	7270	713	310

# Ceramic Swivel Flange 5D Bend 90°

## Slurry Pipe System

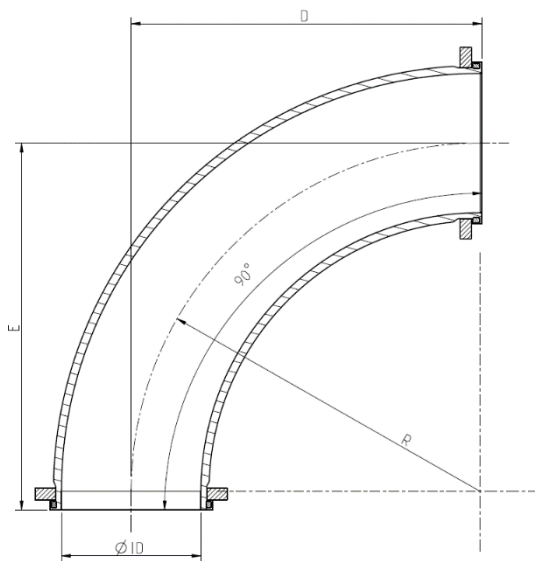
The Metso ceramic swivel flange 5D bend for hydraulic applications has a wear tube with ceramic lining. It is used for slurry handling in heavy wear applications where extra high wear resistance is required.



Ceramic Swivel Flange 5D Bend 90 PTD06-23EN

**Area of use:** The intended area of use is in conjunction with pumping highly abrasive materials, and they are especially well-suited for mill discharge pumps or with demanding gravity flows. They are fully interchangeable with 5D steel bends where extra-long lifetime and less tension in the pipe system is needed.

**Characteristics:** The ceramic bend is equipped with an octagon-shaped ceramic lining with smooth walls and low flow resistance. Each end has a swivel flange designed for high dynamic loads. The swivel ceramic bend forms an extremely reliable system which retains the free flow area without turbulence at the flanges.



**Technical description:** The ceramic swivel bend is lined 180° on the outer curve with octagon-shaped ceramic inserts reinforced with cord and an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. Each end has a rotatable swivel flange with flange drilling delivered according to customer specifications. It also has a built-in rubber gasket.

The safety factor against bursting is 1.5 times the working pressure.

**Installation:** The ceramic swivel 5D bend is designed to be used together with other slurry pipe system components.

### DIN Flanges

Operating Pressure 10 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight		
DN	Item Code	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg	
100	489804X-100	100	132	10	16	1.6	PN10 /PN16	276 x 322	270	13
125	489804X-125	125	158	10	16	1.6	PN10 /PN16	336 x 385	330	19
150	489804X-150	152	185	10	16	1.6	PN10 /PN16	396 x 445	390	25
200	489803X-200	202	240	10	10	1.0	PN10	516 x 572	510	42
250	489803X-250	254	295	10	10	1.0	PN10	658 x 718	650	61
300	489803X-300	303	345	10	10	1.0	PN10	778 x 838	770	80
350	489803X-350	332	405	10	10	1.0	PN10	858 x 918	850	125
400	489803X-400	383	475	10	10	1.0	PN10	978 x 1042	970	163
450	489803X-450	434	520	10	10	1.0	PN10	1130 x 1194	1122	213
500	489803X-500	485	558	10	10	1.0	PN10	1253 x 1320	1245	265
600	489803X-600	585	657	10	10	1.0	PN10	1533 x 1607	1525	406
700	489803X-700	671	772	12	10	1.0	PN10	1786 x 1863	1778	601
800	489803X-800	771	875	12	10	1.0	PN10	2041 x 2129	2033	790
900	489803X-900	870	975	12	10	1.0	PN10	2293 x 2384	2285	1022
1000	489803X-1000	970	1082	12	10	1.0	PN10	2548 x 2645	2540	1312

Operating Pressure 16 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight		
DN	Item Code	mm	Mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489804X-100	100	132	10	16	1.6	PN10 /PN16	276 x 322	270	13
125	489804X-125	125	158	10	16	1.6	PN10 /PN16	336 x 385	330	19
150	489804X-150	152	185	10	16	1.6	PN10 /PN16	396 x 445	390	25
200	489804X-200	202	240	10	16	1.6	PN16	516 x 572	510	45
250	489804X-250	254	293	10	16	1.6	PN16	658 x 718	650	69
300	489804X-300	303	348	10	16	1.6	PN16	778 x 838	770	96
350	489804X-350	332	408	10	16	1.6	PN16	858 x 918	850	150
400	489804X-400	383	457	10	16	1.6	PN16	978 x 1042	970	191
450	489804X-450	434	517	10	16	1.6	PN16	1130 x 1194	1122	255
500	489804X-500	485	575	10	16	1.6	PN16	1253 x 1320	1245	337
600	489804X-600	585	692	10	16	1.6	PN16	1533 x 1607	1525	545

### Operating Pressure 25 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight
DN	Item Code	mm	mm	Bar	EN 1092-1	mm	mm	kg
100	489805X-100	100	155	25	PN25	276 x 322	270	20
125	489805X-125	125	185	25	PN25	336 x 385	330	28
150	489805X-150	152	208	25	PN25	396 x 445	390	36
200	489805X-200	202	268	25	PN25	516 x 572	510	57
250	489805X-250	254	322	25	PN25	658 x 718	650	86
300	489805X-300	303	382	25	PN25	778 x 838	770	119

### ANSI Flanges

#### Operating Pressure 150 psi

Pipe Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight
IN DN	Item Code	mm	mm	bar	ANSI B16.5	mm	mm	lbs
4 100	489806X-100	100	143	10 150	150	276 x 322	270	39
5 125	489806X-125	125	158	10 150	150	336 x 385	330	48
6 150	489806X-150	152	188	10 150	150	396 x 445	390	61
8 200	489806X-200	202	260	10 150	150	516 x 572	510	108
10 250	489806X-250	254	303	10 150	150	658 x 718	650	159
12 300	489806X-300	303	373	10 150	150	778 x 838	770	241
14 350	489806X-350	332	412	10 150	150	858 x 918	850	350
16 400	489806X-400	383	476	10 150	150	978 x 1042	970	448
18 450	489806X-450	434	508	10 150	150	1130 x 1194	1122	550
20 500	489806X-500	485	565	10 150	150	1253 x 1320	1245	698
24 600	489806X-600	585	674	10 150	150	1533 x 1607	1525	1065
28 700	489806X-700	671	789	12 150	150	1786 x 1863	1778	1642
32 800	489806X-800	771	888	12 150	150	2041 x 2129	2033	2123
36 900	489806X-900	870	996	12 150	150	2293 x 2384	2285	2701
40 1000	489806X-1000	970	1110	12 150	150	2548 x 2645	2540	3406

### Operating Pressure 285-230 psi

Pipe	Size		ID	OD	Wear tube	Operating pressure		Flange Drilling ANSI B16.5	D x E	R	Weight
	IN	DN				Item Code	mm				
4	100	489898X-100	100	143	10	20	285	150	276 x 322	270	46
5	125	489898X-125	125	158	10	20	285	150	336 x 385	330	58
6	150	489898X-150	152	188	10	20	285	150	396 x 445	390	73
8	200	489898X-200	202	246	10	20	285	150	516 x 572	510	129
10	250	489898X-250	254	303	10	20	285	150	658 x 718	650	190
12	300	489898X-300	303	373	10	20	285	150	778 x 838	770	290
14	350	489898X-350	332	412	10	16	230	150	858 x 918	850	420
16	400	489898X-400	383	476	10	16	230	150	978 x 1042	970	538
18	450	489898X-450	434	508	10	16	230	150	1130 x 1194	1122	660
20	500	489898X-500	485	565	10	16	230	150	1253 x 1320	1245	838
24	600	489898X-600	585	674	10	16	230	150	1533 x 1607	1525	1278

# Ceramic Swivel Flange 5D Bend 45°

## Slurry Pipe System

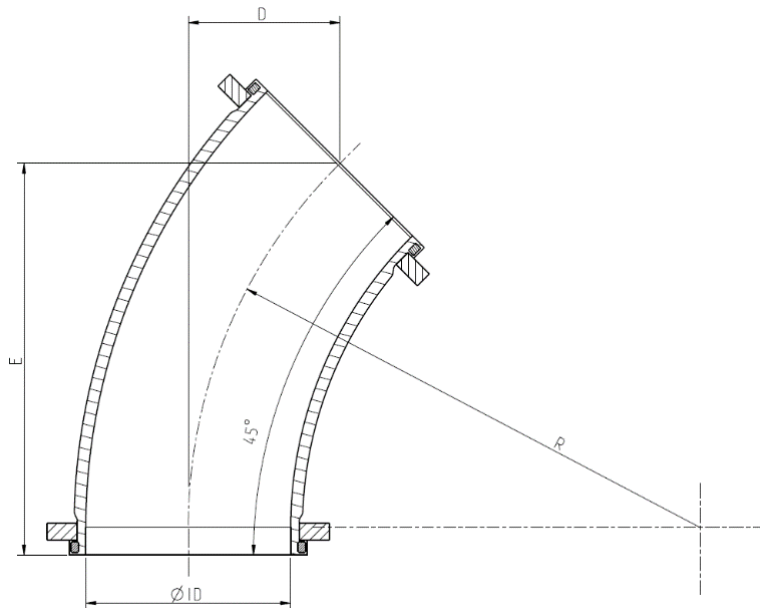
The Metso ceramic swivel flange 5D bend for hydraulic applications has a wear tube with ceramic lining. It is used for slurry handling in heavy wear applications where extra high wear resistance is required.



Ceramic Swivel Flange 5D Bend 45 PTD06-22EN

**Area of use:** The intended area of use is in conjunction with pumping highly abrasive materials, and they are especially well-suited for mill discharge pumps or with demanding gravity flows with sharp particles. They are fully interchangeable with 5D steel bends where extra-long lifetime and less tension in the pipe system is needed.

**Characteristics:** The ceramic bend is equipped with an octagon-shaped ceramic lining with smooth walls and low flow resistance. Each end has a swivel flange designed for high dynamic loads. The swivel ceramic bend forms an extremely reliable system which retains the free flow area without turbulence at the flanges.



**Technical description:** The ceramic swivel bend is lined 180° on the outer curve with octagon-shaped ceramic inserts reinforced with cord and an embedded galvanized steel wire helix for managing dynamic pressure and vacuum. Each end has a rotatable swivel flange with flange drilling delivered according to customer specifications. It also has a built-in rubber gasket.

The safety factor against bursting is 1.5 times the working pressure.

**Installation:** The ceramic swivel 5D bend is designed to be used together with other slurry pipe system components.

### DIN Flanges

Operating Pressure 10 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight	
DN	Item Code	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489799X-100	100	132	10	1.6	PN10 /PN16	83 x 274	270	11
125	489799X-125	125	158	10	1.6	PN10 /PN16	101 x 293	330	17
150	489799X-150	152	185	10	1.6	PN10 /PN16	118 x 335	390	21
200	489798X-200	202	240	10	1.0	PN10	154 x 427	510	33
250	489798X-250	254	295	10	1.0	PN10	196 x 533	650	45
300	489798X-300	303	345	10	1.0	PN10	231 x 618	770	57
350	489798X-350	332	405	10	1.0	PN10	255 x 675	850	89
400	489798X-400	383	480	10	1.0	PN10	290 x 764	970	116
450	489798X-450	434	525	10	1.0	PN10	334 x 871	1122	147
500	489798X-500	485	558	10	1.0	PN10	370 x 961	1245	183
600	489798X-600	585	657	10	1.0	PN10	452 x 1166	1525	257
700	489798X-700	671	772	12	1.0	PN10	526 x 1348	1778	369
800	489798X-800	771	875	12	1.0	PN10	601 x 1539	2033	477
900	489798X-900	870	975	12	1.0	PN10	675 x 1720	2285	606
1000	489798X-1000	970	1082	12	1.0	PN10	750 x 1907	2540	761

Operating Pressure 16 bar

Size	ID	OD	Wear tube	Operating pressure	Flange Drilling	D x E	R	Weight	
DN	Item Code	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489799X-100	100	132	16	1.6	PN10 /PN16	83 x 274	270	11
125	489799X-125	125	158	16	1.6	PN10 /PN16	101 x 293	330	17
150	489799X-150	152	185	16	1.6	PN10 /PN16	118 x 335	390	21
200	489799X-200	202	240	16	1.6	PN16	154 x 427	510	36
250	489799X-250	254	293	16	1.6	PN16	196 x 533	650	50
300	489799X-300	303	348	16	1.6	PN16	231 x 618	770	63
350	489799X-350	332	408	16	1.6	PN16	255 x 675	850	98
400	489799X-400	383	457	16	1.6	PN16	290 x 764	970	128
450	489799X-450	434	517	16	1.6	PN16	334 x 871	1122	162
500	489799X-500	485	575	16	1.6	PN16	370 x 961	1245	201
600	489799X-600	585	692	16	1.6	PN16	452 x 1166	1525	282



### Operating Pressure 25 bar

Size		ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight
DN	Item Code	mm	mm	mm	Bar	Mpa	EN 1092-1	mm	mm	kg
100	489800X-100	100	155	10	25	2.5	PN25	83 x 274	270	14
125	489800X-125	125	185	10	25	2.5	PN25	101 x 293	330	20
150	489800X-150	152	208	10	25	2.5	PN25	118 x 335	390	25
200	489800X-200	202	268	10	25	2.5	PN25	154 x 427	510	43
250	489800X-250	254	322	10	25	2.5	PN25	196 x 533	650	60
300	489800X-300	303	382	10	25	2.5	PN25	231 x 618	770	76

### ANSI Flanges

#### Operating Pressure 150 psi

Pipe Size		ID	OD	Wear tube	Operating pressure		Flange Drilling	D x E	R	Weight	
IN	DN	Item Code	mm	mm	mm	bar	psi	ANSI B16.5	mm	mm	lbs
4	100	489801X-100	100	143	10	10	150	150	83 x 274	270	36
5	125	489801X-125	125	158	10	10	150	150	101 x 293	330	43
6	150	489801X-150	152	188	10	10	150	150	118 x 335	390	54
8	200	489801X-200	202	246	10	10	150	150	154 x 427	510	91
10	250	489801X-250	254	303	10	10	150	150	196 x 533	650	130
12	300	489801X-300	303	373	10	10	150	150	231 x 618	770	198
14	350	489801X-350	332	412	10	10	150	150	255 x 675	850	277
16	400	489801X-400	383	476	10	10	150	150	290 x 764	970	356
18	450	489801X-450	434	508	10	10	150	150	334 x 871	1122	422
20	500	489801X-500	485	565	10	10	150	150	370 x 961	1245	533
24	600	489801X-600	585	674	10	10	150	150	452 x 1166	1525	787
28	700	489801X-700	671	789	12	10	150	150	526 x 1348	1778	1195
32	800	489801X-800	771	888	12	10	150	150	601 x 1539	2033	1511
36	900	489801X-900	870	996	12	10	150	150	675 x 1720	2285	1876
40	1000	489801X-1000	970	1110	12	10	150	150	750 x 1907	2540	2303

### Operating Pressure 285-230 psi

Pipe IN	Size		ID mm	OD mm	Wear tube mm	Operating pressure		Flange Drilling ANSI B16.5	D x E mm	R mm	Weight lbs
	DN	Item Code				bar	psi				
4	100	489899X-100	100	143	10	20	285	150	83 x 274	270	39
5	125	489899X-125	125	158	10	20	285	150	101 x 293	330	48
6	150	489899X-150	152	188	10	20	285	150	118 x 335	390	59
8	200	489899X-200	202	246	10	20	285	150	154 x 427	510	100
10	250	489899X-250	254	303	10	20	285	150	196 x 533	650	143
12	300	489899X-300	303	373	10	20	285	150	231 x 618	770	218
14	350	489899X-350	332	412	10	16	230	150	255 x 675	850	305
16	400	489899X-400	383	476	10	16	230	150	290 x 764	970	391
18	450	489899X-450	434	508	10	16	230	150	334 x 871	1122	464
20	500	489899X-500	485	565	10	16	230	150	370 x 961	1245	586
24	600	489899X-600	585	674	10	16	230	150	452 x 1166	1525	865

