

fittings with flange and pipes  
formstücke mit flansche und rohren  
fazonski komadi sa prirubnicama I cevi

## фазонски делови со прирабници и цевки



Фазонските делови од овој тип се наменети за вградување во водоводни гасни и други видови инсталации како споеви. Деловите ги изработуваме од нодуларен и од сив лив за работен притисок од 10 и 16 бари. Заштитата на деловите ја вршиме со материјал кој не го загрозува здравјето на луѓето. Испитувањето на деловите се врши под притисок од 25 бари. Споевите се изведуваат со завртки.

Fittings from this type are intended for embedment in water conduit, gas and other kinds of installations as junctions. Parts are made from ductile and gray iron with working pressure as 10 and 16 bars. Protection of products is performed with material which is safe for human health. Testing of products is made under pressure as 25 bars. Junctions are executed with bolts.

Die Formstücke dieser Art sind zum Einbauen in Wasserleitungen und andere Installationen als Verbindungsstücke/Kupplungen bestimmt. Die Teile werden aus Duktilen- und Grau-gusseisen gefertigt und sind für einen Arbeitsdruck von 10 und 16 Bar geeignet. Der Schutz der Teile wird mit einem Material, welcher die Gesundheit der Menschen nicht gefährdet, ausgeführt. Die Erprobung der Teile wird unter einem Druck von 25 Bar geprüft. Die Verbindungsteile erfolgen mit Gewinde.

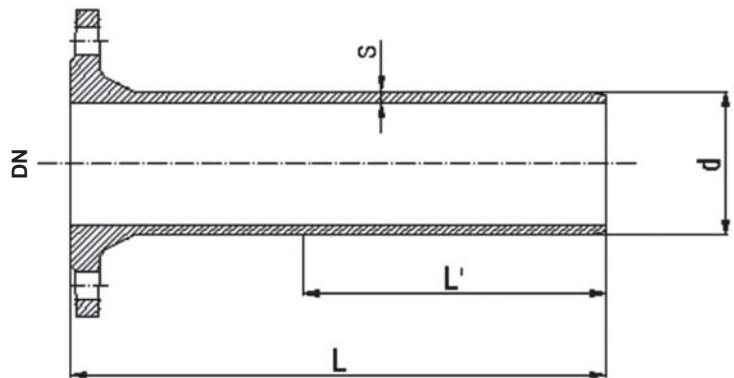
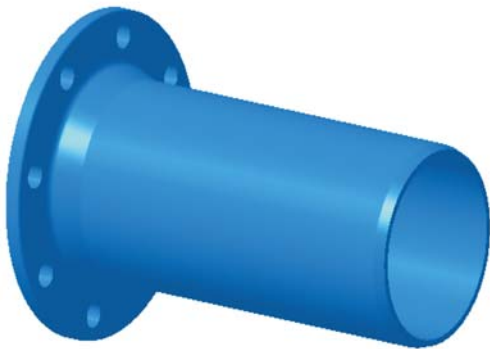
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## фазонски делови со прирабници и цевки

- F** дел за спојување со прирабница  
 F flanged spigot pieces  
 F einflanschstücke  
 F deo za spajanje sa prirubnicom



DN	d	L	L'	s	maca weight gewicht masa (kg)	
					PN10	PN16
50	66	340	200	7	5.4	5.4
60	77	345			6.6	6.6
80	98	350			7.8	7.8
100	118	360	215	7.2	9.7	9.7
125	144	370	220	7.5	12.4	12.4
150	170	380	225	7.8	15.8	15.8
200	222	400	230	8.4	23	22.8
250	274	420	240	9	32	31.8
300	326	440	250	9.6	42	42.7
350	378	460	260	10.2	53	55.5
400	429	480	270	10.8	65	70.3
*450	480	500	280	18.7	123	135.6
*500	532	520	290	19.8	146	164.3
*600	635	560	310	22.2	227	259.6

\*моделите се за сив лив (SL) по DIN 28523  
 во фаза на изработка се нодуларни верзии

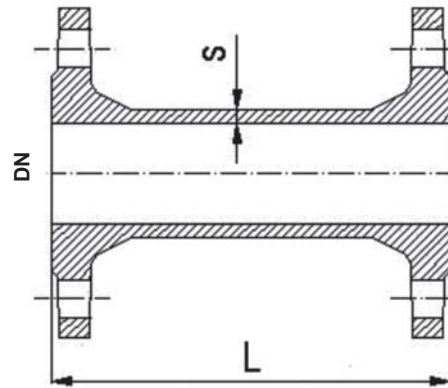
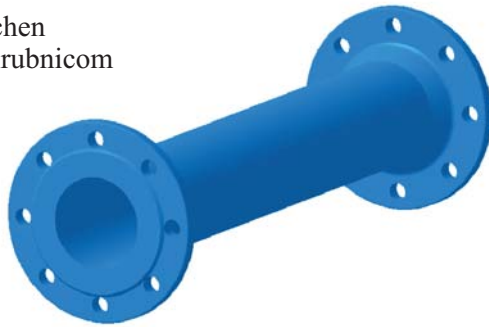
\* patterns are for grey iron - DIN 28523  
 we are in phase of making nodular version

**FF дел за спојување со прирабница**

FF flanged pipe

FF formstück mit flanschen

FF deo za spajanje sa priрубnicom



**FF EN 545 DIN 28614 PN10**

**GJS**

DN	s	маса (kg) / парче за PN10 weight (kg) / piece for PN10 gewicht (kg) / st für PN10 masa (kg) / komad za PN 10									
		L									
		100	200	300	400	500	600	700	800	900	1000
50	7	-	6.5	9	10	11	12.5	-	-	-	-
65		-	8	8.8	11	11.5	13.5	-	-	-	-
80		7.6	9.2	10.8	12.4	14.1	15.7	17.3	18.9	20.5	22
100	7.2	8.6	10.7	12.7	14.8	16.8	18.8	21	23	25.5	27
125	7.5	10.6	13.3	15.9	18.6	21	24	25.5	29	32	34.5
150	7.8	13.2	16.5	19.7	23	26	29.5	32.5	36	39	42.5
200	8.4	18.4	23	27.5	32	37	41.5	46	50.5	53	60
250	9	25.5	32	38	44	50.5	56.5	62.5	68.5	75	81
300	9.6	34	41.5	49.5	57	65	73	80.5	88.5	96.5	104
*350	16.3	-	69	82.5	96	109	122.5	136	149	163	177
*400	17.5	-	85	100	115	130	146	161	176	191	206
*450	18.7	-	94	112	131	149	167	185	204	222	240
*500	19.8	-	-	135	157	178	200	222	243	265	287
*600	22.2	-	-	172	200	227	255	282	310	337	364

\* моделите се за сив лив (SL) по DIN 28514  
во изработка е нодуларна верзија

\* patterns are for grey iron - DIN 28514  
we are in phase of making nodular version

**FF EN 545 DIN 28614 PN16**

**GJS**

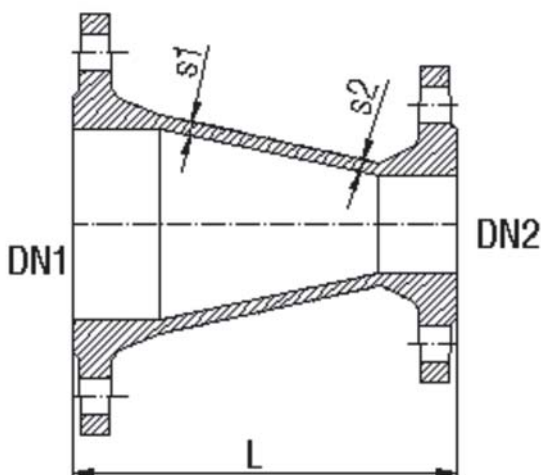
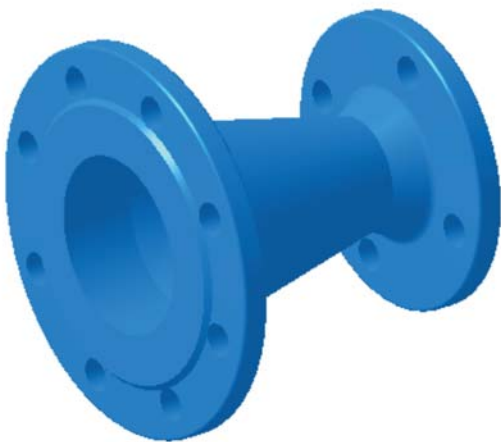
DN	s	маса (kg) / парче за PN16 weight (kg) / piece for PN16 gewicht (kg) / st für PN16 masa (kg) / komad za PN 16									
		L									
		100	200	300	400	500	600	700	800	900	1000
50	7	-	6.5	9	10	11	12.5	-	-	-	-
65		-	8	8.8	11	11.5	13.5	-	-	-	-
80		7.6	9.2	10.8	12.4	14.1	15.7	17.3	18.9	20.5	22
100	7.2	8.6	10.7	12.7	14.8	16.8	18.8	21	23	25	27
125	7.5	10.6	13.3	15.9	18.6	21	24	26.5	29	32	34.5
150	7.8	13.2	16.5	19.7	23	26	29.5	32.5	36	39	42.5
200	8.4	19.8	23.8	27.9	31.9	35.9	39.9	43.9	47.9	51.9	55.9
250	9	26.4	32.6	37.9	43.3	48.6	54.1	59.4	64.7	70.1	75.4
300	9.6	34.3	42.9	49.8	56.6	63.4	70.2	77.1	83.8	90.7	97.5
*350	10.2	-	78.6	92.1	105.6	118.6	132.1	145.6	158.6	172.6	186.6
*400	10.8	-	98.6	113.6	128.6	143.6	159.6	174.6	189.6	204.6	219.6
*450	11.4	-	119.2	137.2	156.2	174.2	192.2	210.2	229.2	247.2	262.2
*500	12	-	-	171.6	193.6	214.6	236.6	258.6	279.6	301.6	323.6
*600	13.2	-	-	237.2	265.2	292.2	320.2	347.2	375.2	402.2	429.2

\* моделите се за сив лив (SL) по DIN 28514  
во изработка е нодуларна верзија

\* patterns are for grey iron - DIN 28514  
we are in phase of making nodular version

**фазонски делови со прирабници и цевки**

**FFR редуцир со прирабница**  
 FFR double socket tapers  
 FFR reduktion mit flansches  
 FFR reducir sa prirubnicom



FFR EN 545 DIN 28645 GJS

DN1	DN2	L	S1	S2	maca weight (kg)		
					PN10	PN16	
65	50	200	7	7	6.8	6.8	
80	50				7.4	7.4	
	65				8.2	8.2	
100	50		7.2		7	8.1	8.1
	65					8.8	8.8
	80					9.5	9.5
125	80		7.5	7.2	10.7	10.7	
	100				11.4	11.4	
150	50		7.8	7	11.9	11.9	
	80				12.2	12.2	
	100				12.8	12.8	
	125				14.1	14.1	
200	80	8.4	7	18.1	17.7		
	100			18.6	18.2		
	125			20	19.6		
	150			22	21.6		
250	80	300	9	7	24	23.6	
	100			7.2	26	25.4	
	125			7.5	28	27.6	
	150			7.8	29	28.6	
	200			8.4	30.5	30.1	
300	100	9.6	7.2	35.6	34.6		
	150			7.8	37	36	
	200			8.4	35.9	34.9	
	250			9	41	40	
*350	200	16.3	12.8	87	91.8		
	250			14	96	101.3	
	300			15.2	106	111.3	
*400	200	17.5	12.8	98	104.8		
	250			14	109	116.3	
	300			15.2	120	127.3	
	350			16.3	132	143.6	
*450	300	600	16.3	130	143.1		
	350			145	162.4		
	400			158	177.4		
*500	300	19.8	146	164.8			
	350			160	183.1		
	400			174	195.1		
	450			186	316.9		
*600	400	22.2	17.5	210	249.4		
	450			222	267.2		
	500			19.8	239	290	

\* моделите се за сив лив (SL) по DIN 28545  
 во изработка е нодуларна верзија

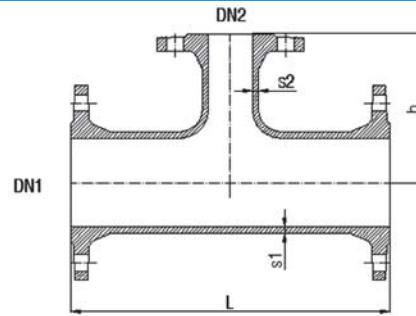
\* patterns are for grey iron - DIN 28545  
 we are in phase of making nodular version

**T** огранок со прирабница

T all flanged tees

T stücke

T ogranak sa prirubnicom



T EN 545 DIN 28643

GJS

DN1	DN2	L	h	S1	S2	maca weight gewicht t masa		(kg)
						PN10	PN16	
50	50	300	150	7	7	12	12	
	65		13			13		
80	50	330	165		7	13.6	13.6	
	65		14.8		14.8			
	80		15.4		15.4			
100	50	360	170		7.2	16.6	16.6	
	65		17.6			17.6		
	80		18.6			18.6		
	100		19.4			19.4		
125	50	400	185		7.5	7	21.7	21.7
	65		190	22.6		22.6		
	80		195	23		23		
	100		7.2	24		24		
	125		7.5	25.5		25.5		
150	50	440	200	7.8	7	27.5	27.5	
	65		205		27.8	27.8		
	80		210		29	29		
	100		215		7.2	29.5	29.5	
	125		215		7.5	31	31	
	150		220		7.8	32.8	32.8	
200	50	520	230	8.4	7	40.4	39.6	
	65		235		41.3	40.5		
	80		42.5		41.7			
	100		7.2		43	42.8		
	125		7.5		45	44.2		
	150		7.8		46.5	45.7		
	200		8.4		50	48.8		
250	80	700	265	9	7	64.8	63.9	
	100		7.2		66	65.1		
	125		7.5		67.5	66.6		
	150		7.8		76	75.1		
	200		8.4		76.5	75.6		
	250		325		9	83	81.7	
	350		350		9	83	81.7	

DN1	DN2	L	h	S1	S2	maca weight gewicht masa		(kg)				
						PN10	PN16					
300	80	800	290	9.6	7	93	92.4					
	100		300			94	93.4					
	125		7.2			95.4	94.8					
	150		7.8			96.8	96.2					
	200		8.4			102	101					
	250		9			112	111					
*350	80	850	325	16.3	16.3	160	169.6					
	100		166			175.6						
	150		171			180.6						
	200		169			178.6						
	250		173			183.1						
	300		186			196.5						
*400	80	900	350	16.5	16.5	198	211.6					
	100					205	218.6					
	125					207	220.6					
	150					209	222.6					
	200					211	224.6					
	250	215	229.1									
	300	232	246.1									
	350	239	257.4									
	400	246	266.4									
	*450	150	950	375	17.5	17.5	250	275.2				
250		265					290.7					
300		277					302.7					
350		286		316								
400		304		336								
450		311		348.8								
*500		125		1000			400	19.8	18	299	335.6	
	150	301	337.6									
	200	307	343.6									
	250	315	352.1									
	300	334	371.1									
	350	342	383.4									
	400	349	392.4									
	450	355	404.2									
	500	363	417.9									
	*600	150	1100		450	22.2	21			445	510.2	
		200								451	516.2	
250		458		523.7								
300		466		531.7								
350		475		545								
400		485		557								
450		492		569.8								
500		499		582.5								
600		516		613.8								

\* моделите се за сив лив (SL) по DIN 28543  
во изработка е нодуларна верзија

\* patterns are for grey iron - DIN 28543  
we are in phase of making nodular version

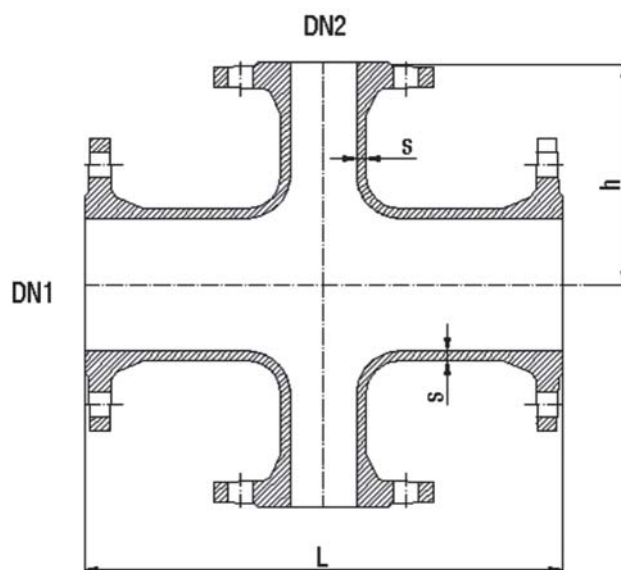
## фазонски делови со прирабници и цевки

TT крст со прирабница

TT all flanged crosses

TT kreuzflanschenstücke

TT krst sa prirubnicom



TT DIN 28544

GJL

DN1	DN2	L	S	h	masa weight gewicht masa (kg)
*50	50	300	9.3	150	17
*65	65	330	9.7	165	22
*80	80	360	10	180	27
*100	100	400	10.5	200	34
*125	125	450	11.1	225	46
*150	150	500	11.7	250	60
*200	200	600	12.8	300	93
*250	250	700	14	350	135
*300	300	800	15.2	400	186
*350	350	850	16.3	425	238
*400	400	900	17.5	450	298
*450	450	950	18.7	475	362
*500	500	1000	19.8	500	431
*600	600	1100	22.2	550	603

**Q 90° EN 545 DIN 28637 GJS**

DN	b	s	маса weight gewicht masa (kg)	
			PN10	PN16
50	150	7	6.5	6.5
65	165		8	8
80			9.9	9.9
100	180	7.2	11.9	11.9
125	200	7.5	15.6	15.6
150	220	7.8	20.5	20.5
200	260	8.4	31	30.5
250	350	9	50	49
300	400	9.6	70	69
*350	450	16.3	137	146.6
*400	500	17.5	181	194.6
*450	550	18.7	226	251.2
*500	600	19.8	290	326.6
*600	700	22.2	442	507.2

\*моделите се за сив лив (SL) по DIN 28537  
во изработка се модели од нодуларен лив

\* patterns are for grey iron - DIN 28537  
we are in phase of making nodular version

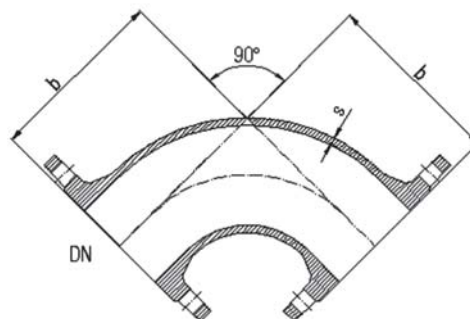
**FFK 45° EN 545 DIN 28639 GJS**

DN	b	s	маса weight gewicht masa (kg)	
			PN10	PN16
*50	150	9.3	9	9
*65	165	9.7	12	12
80	130	7	9.5	9.5
100	140	7.2	11.4	11.4
125	150	7.5	14.6	14.6
150	160	7.8	18.7	18.7
200	180	8.4	30.6	30
250	350	9	60	59
300	400	9.6	84	83
*350	298	16.3	115	124.6
*400	324	17.5	149	162.6
*450	350	18.7	185	210.2
*500	375	19.8	231	267.6
*600	426	22.2	342	407.2

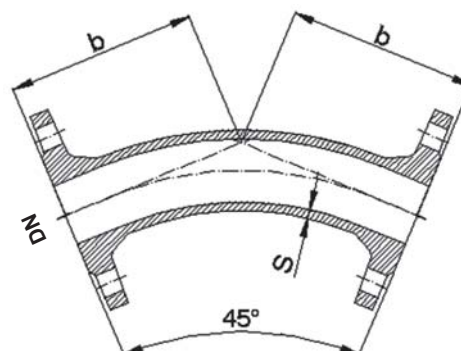
\*моделите се за сив лив (SL) по DIN 28539  
во изработка се модели од нодуларен лив

\* patterns are for grey iron - DIN 28539  
we are in phase of making nodular version

- Q лак со прирабница 90°
- Q double flanged 1/4 bends
- Q flanschekrümmen 1/4 (Q - stücke)
- Q luk sa prirubnicom 90°

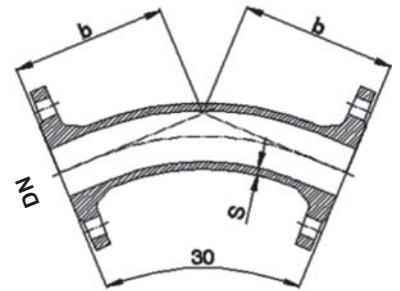


- FFK лак со прирабница 45°
- FFK double flanged 1/8 bends
- FFK flanschbogenstücke 1/8 (45 - FFK - stücke)
- FFK luk sa prirubnicom 45°



**фазонски делови со прирабници и цевки**

- FFK лак со прирабница 1/12**
- FFK double flanged 1/12 bends
- FFK flanschbogenstücke 1/12 (30 FFK - stücke)
- FFK luk sa prirubnicom 1/12

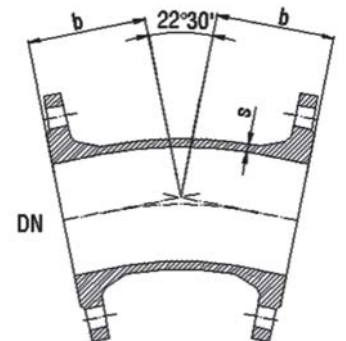


**FFK 30° EN 545 DIN 28640**

**GJS**

DN	b	s	masa weight gewicht masa (kg)
100	140	7.2	11.9
125	150	7.5	15.8
150	160	7.8	19.7

- FFK лак со прирабница 1/16**
- FFK double flanged 1/16 bends
- FFK flanschbogenstücke 1/16 (22 1/2° - stücke)
- FFK luk sa prirubnicom 1/16

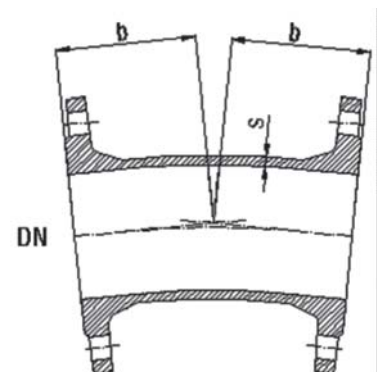


**FFK 22 1/2° EN 545 DIN 28641**

**GJS**

DN	b	s	masa weight gewicht masa (kg)
100	110	7.2	12.7
125	105	7.5	15.4
150	109	7.8	19.7
200	131	8.4	50

- FFK лак со прирабница 1/32**
- FFK double flanged 1/32 bends
- FFK flanschbogenstücke (11 1/4° - stücke)
- FFK luk sa prirubnicom 1/32



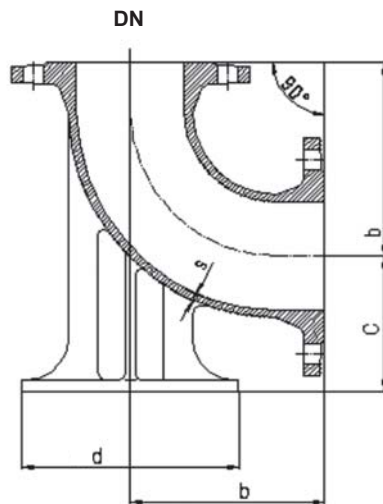
**FFK 11 1/4° EN 545 DIN 28642**

**GJS**

DN	b	s	masa weight gewicht masa (kg)
80	113	7	9.2
100	115	7.2	11.9
125	111	7.5	14.9
150	113	7.8	19.7

**N лак со стопало**

- N double flanged 1/4 duckfood bend
- N bogenstück mit lasche 1/4 (N stücke )
- N luk sa stopalom



**N 90 EN 545 DIN 28638**

**GJS**

DN	b	c	d	s	maca weight gewicht masa (kg)	
					PN10	PN16
50	150	95	150	7	9.8	9.8
65	165	100	165		11.6	11.6
80	165	110	180		13.4	13.4
100	180	125	200	7.2	16.8	16.8
125	200	140	225	7.5	22	22
150	220	160	250	7.8	29.5	29.5
200	260	190	300	8.4	46.2	45.5
250	350	225	350	9	73.5	72.5
300	400	255	400	9.6	104	103
*350	450	290	450	16.3	215	224.6
*400	500	320	500	17.5	281	294.6
*450	550	355	550	18.7	350	375.2
*500	600	385	600	19.8	446	482.2
*600	700	450	700	22.2	677	742.2

\*моделите се од сив лив (SL) по DIN 28538 во фаза е изработка на модели од нодуларен лив

\* patterns are from grey iron - DIN 28538 we are in phase of making nodular version

**X завршеток со прирабница**

- X blank flanges
- X blindflanshe
- X završetak sa prirubnicom

**X EN 545 DIN 28646**

**GJS**

DN	b		s	d		f	maca weight gewicht masa (kg)		
	24.5	26.5		505	520		PN10	PN16	
50	19	16	165		3	3	2.9	2.9	
65			185				3.8	3.8	
80			200				4	4	
100			220				4.6	4.6	
125			250				6	6	
150			285				7.6	7.6	
200	20	17	340		4	4	11.4	11.2	
250	22	19	400				17.2	16.8	
300	24.5	20.5	455				25	24.5	
350	24.5	20.5	22.5	505			520	30	35
400			24	565			580	38	44
450	25.5	30	21.5	26			615	640	53
500	26.5	31.5	22.5	27.5	670	715	68	79	
600	30	36	25	31	780	840	92	105	

