

COMMERCIAL DOCUMENTATION

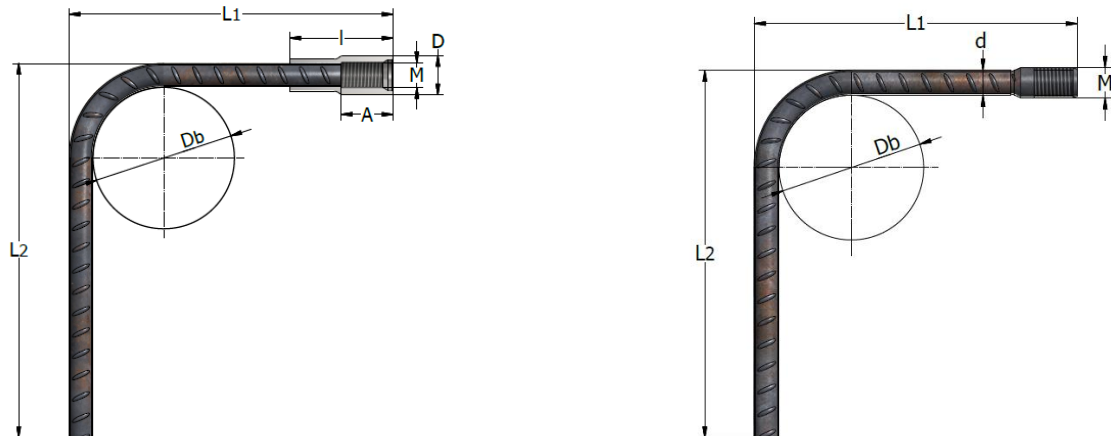


REBAR CONNECTION SYSTEM | **PSAGGD** **DOUBLE BENT COUPLER**



PSAG AND TSEG - BENT REINFORCEMENT COUPLERS

The bent PSAG reinforcement coupler consists of reinforcement steel bent with a sleeve pressed on one end.



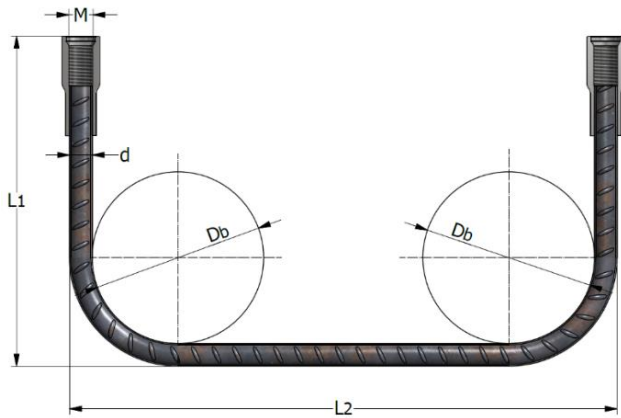
PSAG		Bush diameter	Bush length	Rebar diameter	Thread	
Description	Product range no.	D	l	d	Metric	A
		[mm]	[mm]	[mm]	[mm]	[mm]
PSAG 10 - M12 - L1xL2	91206	17.5	50	10	12	18
PSAG 12 - M16 - L1xL2	90708	22	62	12	16	25
PSAG 16 - M20 - L1xL2	90709	28	86	16	20	38
PSAG 20 - M24 - L1xL2	91207	34	99	20	24	42
PSAG 25 - M30 - L1xL2	90707	42.5	117	25	30	52
PSAG 28 - M36 - L1xL2	91235	50	130	28	36	55
PSAG 32 - M42 - L1xL2	91208	56	153	32	42	65

The PSAG or TSEG coupler generally has a bent diameter $D_b = 10 \times d$, but on request, it can be manufactured at $D_b = 15 \times d$ or $D_b = 20 \times d$. Other lengths, such as L_1 and L_2 are also available on request: **PSAG (TSEG) d x length L₁ x L₂ in mm**. When choosing dimensions L_1 and L_2 , the minimum size according to the table below should be taken into account. L_1 is the length measured from the front of the coupler to the back of the reinforcing bar.

The minimum dimensions for bending are presented in the following table. The diameter to which a bar is bent should be such that damage to the reinforcement and crushing of concrete inside the bend of the bar are avoided. According to Eurocode 2, minimum bend diameter should be:

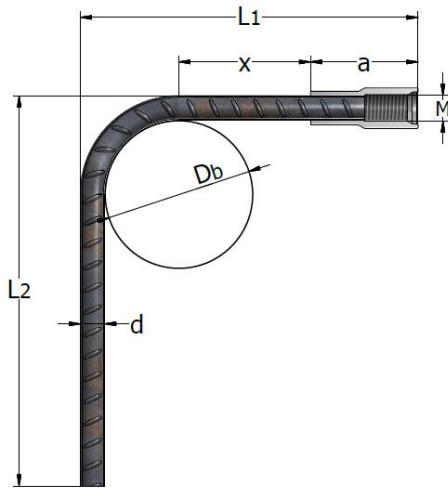
- $D_{bmin} = 4 \times d$ for bar diameter $d \leq 16\text{mm}$
- $D_{bmin} = 7 \times d$ for bar diameter $d > 16\text{mm}$

DOUBLE BENT COUPLER PSAGGD

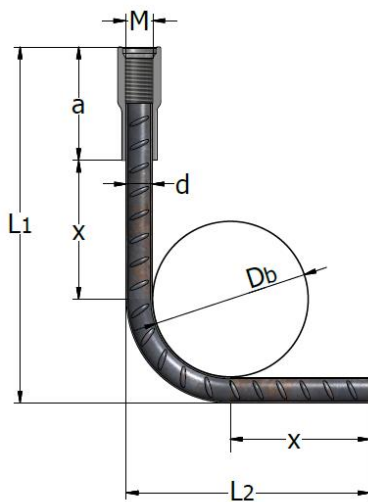


Other lengths are available on request PSAGGD – d x L₁ x L₂ in mm

Minimum dimensions of bent reinforcement couplers



Rebar diameter d	10	12	16	20	25	28	32	40
a	50	62	86	100	117	130	153	188
Bend diameter Dbmin	4xd	4xd	4xd	7xd	7xd	7xd	7xd	7xd
	40	48	64	140	175	196	224	280
x _{min} = 5xd acc. to Eurocode 2	50	60	80	100	125	140	160	200
L ₁ minim	130	160	215	290	355	395	460	570
On request, the bends can also be made at the dimensions below								
x _{min} = 2xd	20	24	32	40	50	56	64	80
L ₁ minim	100	125	165	230	280	315	360	450



Rebar diameter d	10	12	16	20	25	28	32	40
a	50	62	86	100	117	130	153	188
Bend diameter Dbmin	4xd	4xd	4xd	7xd	7xd	7xd	7xd	7xd
	40	48	64	140	175	196	224	280
x _{min} = 5xd acc. to Eurocode 2	50	60	80	100	125	140	160	200
L ₂ minim	80	96	130	190	240	265	305	380

The length for the bent reinforcement coupler can be calculated using the formula:

$$L = L_1 + L_2 - a, \quad \text{for a single bend}$$

$$L = L_1 + L_2 + L_1 - 2a \quad \text{for double bends}$$

$$x = (D_b + 2d) - b \quad \text{"b" is the length in the bending area, "a" reduction of the bar length due to bending}$$

"a" reduction of the bar length due to bending		Reinforcing bar diameter d (mm)				
		12	16	20	25	32
Bend diameter D _b mm	4 x d	25	33	-	-	-
	7 x d	33	44	54	68	87
	10 x d	40	54	67	84	108
	15 x d	53	71	89	111	142
	20 x d	66	88	110	138	176

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