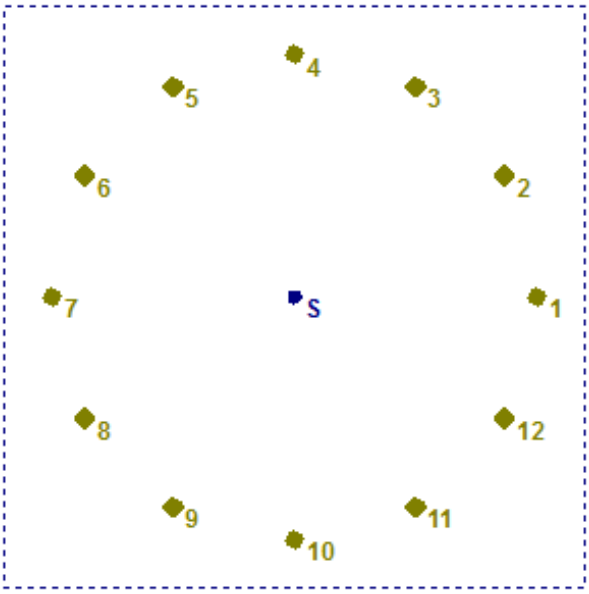
Position:

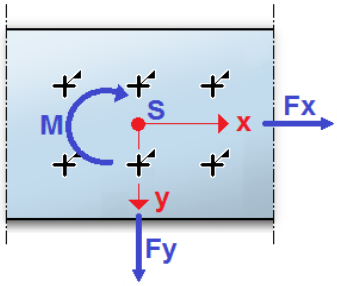
Ermittlung von Schraubenkräften



Systemwerte:

Anzahl Schrauben = 12

Schraube Nr.	x-Koordinate [mm]	y-Koordinate [mm]
1	150,0	0,0
2	129,9	-75,0
3	75,0	-129,9
4	0,0	-150,0
5	-75,0	-129,9
6	-129,9	-75,0
7	-150,0	0,0
8	-129,9	75,0
9	-75,0	129,9
10	0,0	150,0
11	75,0	129,9
12	129,9	75,0



Belastung:

Fx = 10,000 kN
Fy = 50,000 kN
M = 30,000 kNm

Berechnung:

Ip' = 2700,000 [cm²]

Schraube Nr.	Fx,i [kN]	Fy,i [kN]	F,res,i [kN]	|alpha| [°]
1	0,833	20,833	20,850	87,7
2	9,167	18,600	20,737	63,8
3	15,267	12,500	19,732	39,3
4	17,500	4,167	17,989	13,4
5	15,267	-4,167	15,825	15,3
6	9,167	-10,267	13,764	48,2
7	0,833	-12,500	12,528	86,2
8	-7,500	-10,267	12,715	53,9
9	-13,600	-4,167	14,224	17,0
10	-15,833	4,167	16,372	14,7
11	-13,600	12,500	18,472	42,6
12	-7,500	18,600	20,056	68,0