

BREAK EVEN CALCULATION

LIFTING SCREWS BREAK EVEN STEEL VS. ROBALON* – SYSTEM RENOVATION

* ROBALON system = screw + trough + bearing + installation
Renovation example \varnothing 700 x 5.400 mm

COST TYPE	STEEL (S)	ROBALON (R)	COMMENT
Operation costs/d	0.12 €	0.09 €	Efficiency
Period/d	20 years	22 years	(R) less flow volumes
Maintenance p. a.	900.00 €	180.00 €	Cleaning lubrication
Other variable costs p. a.	793.75 €	698.65 €	Wear
Fixed costs	15,857.00 €	13,973.00 €	Purchase and installation + trough
Operating costs p.a.	841.54 €	740.55 €	

INTERIM RESULT	STEEL (S)	ROBALON (R)
Working costs/h	0.12 €	0.09 €
Maintenance lubrication p.a.	900.00 €	180.00 €
Other variable costs wear	793.75 €	698.65 €

Fixed costs screw	6,687.00 €	8,145.00 €
Fixed costs trough	5,918.00 €	2,298.00 €
Fixed costs preparation concrete	0.00 €	1,500.00 €
Fixed costs installation	2,520.00 €	1,680.00 €
Fixed costs lower bearing	750.00 €	350.00 €

INPUT VALES	
Energy	0.08 €/KWh
Drive power	4 KW
\varnothing artial load operation	1.44 KW
Efficiency S	1(1)
Efficiency R	0.8(1)
Staff hourly rate	60 €
Lifespan S	20 years
Lifespan R	20 years
Operating materials p.a. (grease, ...)	600 €

YEARS	COSTS (STEEL)	COSTS (ROBALON)	LOWER COSTS	CHEAPEST VARIANT	DELTA R/S		COMMENT
0	15,875.00 €	13,973.00 €	13,973.00 €	ROBALON	1,902.00 €	0.14	
1	18,410.29 €	15,592.20 €	15,592.20 €	ROBALON	2,818.08 €	0.20	
2	20,945.57 €	17,211.40 €	17,211.40 €	ROBALON	3,734.17 €	0.27	
4	26,016.14 €	20,449.81 €	20,449.81 €	ROBALON	5,566.34 €	0.40	
6	31,086.72 €	23,688.21 €	23,688.21 €	ROBALON	7,398.51 €	0.53	
8	36,157.29 €	26,926.61 €	26,926.61 €	ROBALON	9,230.67 €	0.66	
10	41,227.86 €	30,165.02 €	30,165.02 €	ROBALON	11,062.84 €	0.80	
12	46,298.43 €	33,403.42 €	33,403.42 €	ROBALON	12,895.01 €	0.93	Refinancing a Robalon screw after about 12 years of operation
14	51,369.00 €	36,641.82 €	36,641.82 €	ROBALON	14,727.18 €	1.06	New bearing for steel screw from half the lifespan + 2,520 €
16	56,439.58 €	39,880.23 €	39,880.23 €	ROBALON	16,559.35 €	1.19	
18	61,510.15 €	43,118.63 €	43,118.63 €	ROBALON	18,391.52 €	1.32	
20	66,580.72 €	46,357.03 €	46,357.03 €	ROBALON	20,223.69 €	1.45	
25	79,257.15 €	54,453.04 €	54,453.04 €	ROBALON	24,804.11 €	1.78	Screw exchange - life span prolonging steel screw

TOTAL COST (€)

