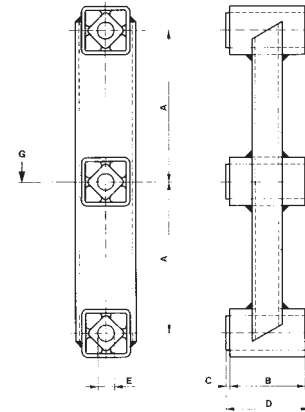


DOUBLE SUSPENSION TYPE AD-C



Art. No.	Type	G			n _{err}	sw	c _d	A	B	C	D	E	Weight in kg
		K = 2	K = 3	K = 4									
07 101 001	AD-C 18	150	120	100	640	17	22	100	50	2.5	55	13 ⁰ _{-0.2}	0.84
07 101 002	AD-C 27	300	240	200	590	21	32	120	60	2.5	65	16 ^{+0.5} _{+0.3}	1.84
07 101 003	AD-C 38	600	500	400	510	28	45	160	80	5	90	20 ^{+0.5} _{+0.2}	4.09
07 101 004	△ AD-C 45	1200	1000	800	450	35	50	200	100	5	110	24 ^{+0.5} _{+0.2}	6.08

G = max. loading in N per suspension

K = oscillating machine factor

n_{err} = max. frequency in min⁻¹ at ±10°, from zero ±5°

sw = max. amplitude in mm

c_d = dynamic spring value in N/mm at ±5°, in frequency range 300–600 min⁻¹

Suspensions for higher loads or asymmetric distances between centres A available on request

△ available on request

Material Structure

Rocker arm made out of welded steel structure; inner square in light alloy profile.

Typical Calculation

Given:

Weight of trough = 200 kg

Weight of counter mass = 200 kg

Material on trough = 50 kg

of this 20% coupling effect = 10 kg

Total weight of oscillating mass m

(trough, counter mass and coupling effect) = 410 kg

Eccentric radius R = 14 mm

Speed n_{err} = 360 min⁻¹

Oscillating machine factor $K = \frac{\left(\frac{2\pi}{60} \cdot n_{err}\right)^2 \cdot R}{9810} = 2.0$

Total spring value $c_t = m \cdot \left(\frac{2\pi}{60} \cdot n_{err}\right)^2 \cdot 0.001 = 582.7 \text{ N/mm}$

Wanted:

Number of double rocker suspensions of size 38 for example

a) in resonance operation

Here the total spring value of the suspensions must be about 10% above the total spring value c_t of the installation. From this follows:

Spring value c_d of the rocker suspension AD 38 = 45 N/mm

Number of suspensions $z = \frac{c_t}{0.9 \cdot c_d} = \frac{582.7}{0.9 \cdot 45} = 14.4$ pieces

Selected: 14 of AD-P 38 or AD-C 38

b) without resonance operation

Here the total weight G must be taken up by the total number of rocker suspensions. The oscillating machine factor K = 2.0 must be taken into account, also the admissible loading of one AD 38 under acceleration 2g = 600 N

Number of suspensions $z = \frac{m \cdot g}{G} = \frac{410 \cdot 9.81}{600} = 6.7$ pieces

Selected: 8 of AD-P 38 or AD-C 38