CALCULATION OF DYNAMIC EFECT OF THE BODY DIMENSIONS

Body dimension D14 - Nape to waist (Back length of back bend)

Number of subject	$X_i^{(s)}$ [cm]	$X_i^{(d)}$ [cm]	$d_i = X_i^{(d)} - X_i^{(s)}$ [cm]
1.	42	56	14
2.	41,5	50	8,5
3.	38,6	48,5	9,9
…	…	…	…
n =16	…	…	…

Mean of static dimension	$\bar{x}^{(s)} = \frac{1}{n}\sum_{i=1}^{n} x_i^{(s)}$ [cm]	$\bar{x}^{(s)}$ = 41,95 cm
Variance	$s_x^{2\,(s)} = \frac{1}{n-1}\sum_{i=1}^{n}(x_i^{(s)} - \bar{x}_i^{(s)})^2$ [cm]	$s_x^{2\,(s)}$ = 12,11 cm^2
Standard deviation	$s = \sqrt{s^2}$ [cm]	s = 3,47 cm
Coefficient of variation	$v = \frac{s}{\bar{x}}.100$ [%]	v = 8,27 %
Dynamic effect	$d_i = x_i^{(d)} - x_i^{(s)}$ [cm]	
Mean of dynamic effect	$\bar{d} = \frac{1}{n}\sum_{i=1}^{n} d_i$ [cm]	8,3 cm

How many % is the dynamic effect of the measured dimension?

$\bar{x}^{(s)}$ ..... value (41,95)..... 100 %
$\bar{d}$ ..... value (8,3) x %

$$x = \frac{8,3}{41,95}.100$$
$$x = 19,785\ \%$$