STOPS

See :
Supports and
Bump stops



Cylindrical stop



Conical progressive stop



LEVAFLEX progressive stop



EVIDGOM stop

DESCRIPTION

There are several types of stops :
- cylindrical or DIABOLO stops;
- conical progressive stops;
- LEVAFLEX progressive stops with central cavity;
- EVIDGOM stops.

OPERATION

The design of the PAULSTRA elastic stops gives the following basic characteristics :
- highly deformable allowing high energies to be absorbed;
- progressive absorption of energy due to the carefully designed shape.

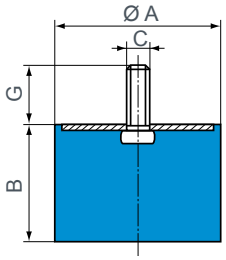
Advantages
- By comparison with rigid stops, PAULSTRA elastic stops are quiet and avoid hammering and deterioration of equipment.

Recommendations
- The stops must be fitted so that, on impact, the axis of the stop is perpendicular to the contact surface.
- On impact, the external diameter of the stop increases: this must be allowed for when fixing.

DIMENSIONS AND OPERATING CHARACTERISTICS

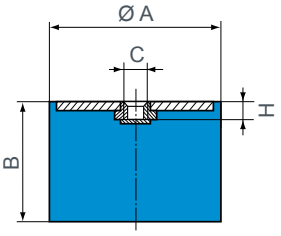
CYLINDRICAL STOPS

Shape 1



Ø A (mm)	B (mm)	C	G (mm)	Shape	H (mm)	Max. load (daN)	Deflect. (mm)	Energy (joules)	Reference
12,5	10 13,5 15 20	M5	10	1	-	12 11 10 8	2 2,5 3 3,5	0,12 0,13 0,16 0,14	**511110** **511128** **511115** **511125**
16	10 15 10 15	M4	10 10 - -	1 1 2 2	- - 2,5 2,5	20	2 3 2 3	0,20 0,30 0,20 0,30	**511150** **511151** **511152** **511153**
	10 15 20 25	M5	12	1	-	20 20 15 15	2 3 4 5	0,20 0,30 0,30 0,30	**511292** **511294** **511296** **511298**
20	15	M6	-	2	4	35	4	0,70	**511154**
	8,5 15 20 25 30	M6	16,5	1	-	40 35 30 30 25	1,5 4 5 5,5 7	0,30 0,70 0,70 0,80 0,80	**511200** **511215** **511220** **511225** **511230**
25,5	10 15 20 30 15 20 30	M6	18 18 18 18 - - -	1 1 1 1 2 2 2	- - - - 4 4 4	80 60 50 50 60 55 50	2 3,5 5 8 3,5 5,5 8	0,80 1,00 1,20 2,00 1,00 1,20 2,00	**511158** **511155** **511159** **511160** **511164** **511162** **511163**

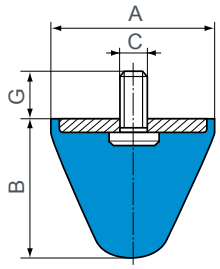
Shape2



Ø A (mm)	B (mm)	C	G (mm)	Shape	H (mm)	Max. load (daN)	Deflect. (mm)	Energy (joules)	Reference
25,5	10 15 19 22 25 30 40	M8	20	1	-	80 60 55 50 50 50 50	2 3,5 4,5 5,5 6 8 10	0,80 1,00 1,20 1,30 1,50 2,00 2,50	**511265** **511270** **511251** **511275** **511280** **511285** **511290**
30	22	M8	-	2	6	80	6	2,40	**511156**
	15 22 30 40	M8	25	1	-	90 80 70 60	3,5 6 8 9	1,50 2,40 2,80 2,70	**511308** **511310** **511312** **511314**
40	30 40	M8	20	1	-	120 120	7 10	4,60 6,00	**511157** **511161**
	20 25 35 40 45	M10	25	1	-	160 150 120 120 120	5 6 8 10 11	4,00 4,50 4,80 6,00 6,60	**511450** **511401** **511452** **511454** **511456**
50	25 35 45	M10	25	1	-	300 250 190	6 9 11	9,00 11,20 10,00	**511525** **511535** **511545**
60	25 36 45	M10	25	1	-	400 300 250	6 9 11	12,00 13,50 13,70	**511625** **511635** **511645**
70	35 50 70	M10	25	1	-	450 350 300	9 12 14	20,00 21,00 21,00	**511735** **511750** **511770**
75	24	M12	37	1	-	600	4,5	13,50	**511751**
80	25 30 40 70 80	M14	45 35 35 35 35	1	-	1100 950 600 500 450	6 8 10 17 19	33,00 38,00 30,00 42,50 43,00	**513801** **511830** **511840** **511870** **511880**

See current price list for availability of items.

CONICAL PROGRESSIVE STOPS



Reference	Ø A (mm)	B (mm)	C	G (mm)	Repetitive shocks			Exceptionnal shock energy (joules)	Weight (g)
					Energy (joules)	Deflect. (mm)	Reaction (daN)		
512251	25,5	19	M8	20	3	8	100	9	20
512307	30	30	M8	25	6	15	140	18	31
512301	30	30	M6	13,5	6	15	140	18	25
511962	40	39	M8	16	15	16	250	45	62
512515	50	50	M10	25	30	25	340	90	118
512501	50	50	M8	20	30	25	340	90	105
512516	50	64	M10	25	40	32	370	120	154
512502	50	64	M8	35	40	32	370	120	145
512517	50	58	M10	25	37	28	400	110	143
512503	50	58	M8	15	37	28	400	110	125
512608	60	40	M10	25	27	18	550	70	120
512601	60	40	M14	62	27	18	550	70	180
512700	72	58	M10	25	50	26	550	150	230
512721	72	58	M12	30	50	26	550	150	243
512951	95	80	M16	45	120	37	1 100	350	565

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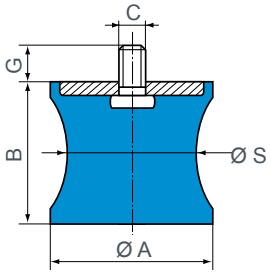
DIABOLO STOPS

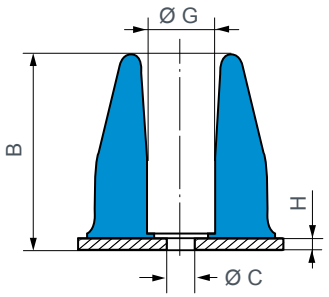


References	Ø S (mm)	Ø A (mm)	B (mm)	C	G (mm)	Max. instant. load (daN)	Deflect. (mm)	Max. static load (daN)	Deflect. (mm)	Energy (joules)	Weight (g)
511571	22	57	42	M8	20	100	10	10	4	1	60
511572	30	57	42	M8	20	200	12	75	5,5	2	80
511601	44	60	57	M10	25	350	15	150	8	6	190
511801	62	80	65	M14	30	800	16	300	9,5	15	500
511951	70	95	70	M16	47	1 000	18	400	9,5	20	790

LEVAFLEX PROGRESSIVE STOPS

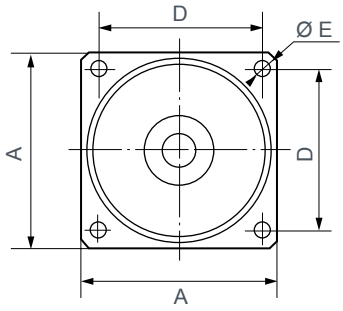
Reference	A (mm)	B (mm)	Ø C (mm)	D (mm)	Ø E (mm)	Ø G (mm)	H (mm)	Weight (g)
514085	85	85	8,5	69	8,5	20	5	600
514110	110	110	12,5	90	8,5	30	6	1 200
514130	130	130	19	106	11	40	6	2 000
514160	160	160	23	132	11	45	8	3 000
514200	200	200	28	168	13	60	10	7 000

See current price list for availability of items.



Repetitive shocks			Exceptional shock energy (joules)	Reference hardness
Energy (joules)	Corresponding deflection (mm)	Reaction (daN)		
170	40	1 200	500	**514085/60**
280	40	1 700	850	**514085/75**
330	50	1 800	1 000	**514110/60**
550	50	3 400	1 500	**514110/75**
600	65	2 800	1 800	**514130/60**
650	60	3 000	1 900	**514130/75**
1 050	75	4 500	3 000	**514160/60**
1 200	90	4 000	3 600	**514200/60**
1 300	70	6 000	3 900	**514160/75**
2 200	85	7 800	6 600	**514200/75**

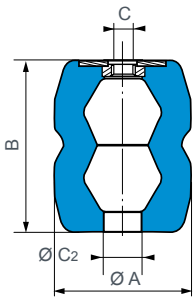
See current price list for availability of items.



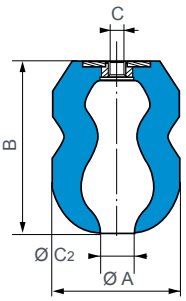
EVIDGOM STOPS

Repetitive shocks			Exceptional shock energy (joules)	Reference hardness
Energy (joules)	Corresponding deflection (mm)	Reaction (daN)		
31	30	190	95	**810644**
100	50	580	300	**810645**
110	45	600	330	**810666**
180	67	750	540	**810642**
350	75	1 250	1 050	**810653**
360	65	1 400	1 100	**810655**
400	85	1 500	1 200	**810669**
300	70	900	-	**810784**
600	75	1 625	-	**810775**
1 050	90	2 375	-	**810776**
2 500	90	5 500	-	**810733/60**
7 100	150	11 000	-	**810732/60**
9 500	200	9 500	-	**810731/60**
13 000	130	18 000	-	**810732/75**
17 500	175	19 000	-	**810731/75**
21 000	200	25 000	-	**810735/60**
29 000	250	35 000	-	**810734/60**
41 000	200	70 000	-	**810735/75**
50 000	250	55 000	-	**810734/75**

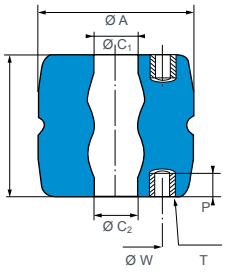
See current price list for availability of items.



Shape 1



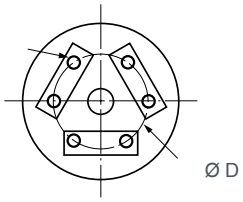
Shape 2

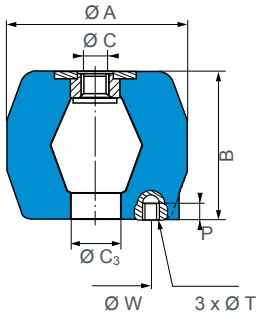


Shape. 3

Stop reference	Shape	All rubber Evidgom reference	Ø A (mm)	B (mm)	C	Ø C1 (mm)	Ø C2 (mm)	Ø D (mm)	Ø A under load (mm)
810642	1	**810022**	85	120	M16	20	30	-	114
810644	1	**810004**	55	55	M10	14	14	-	72
810645	2	**810035**	66	93	M16	20	14	-	100
810653	1	**810023**	100	130	M16	20	30	-	140
810655	1	**810025**	110	132	M16	20	30	-	142
-	3	**810026**	60	100	-	14	20	-	75
-	3	**810027**	66	93	-	14	20	-	80
810666	2	**810046**	76	90	M16	20	14	-	98
810669	2	**810029**	110	150	M16	20	30	-	155
810731	3	-	250	400	2 x 6 x M24	70	70	150	360
810732	3	-	250	315	2 x 6 x M24	70	70	150	380
810733	3	-	250	230	2 x 6 x M24	70	70	150	370
810734	3	-	350	500	2 x 8 x M24	85	85	196	445
810735	3	-	350	395	2 x 8 x M24	85	85	196	500
810775	1	**810015**	155	150	M16	25	30	-	202
810776	1	**810016**	188	180	M24	40	40	-	256
810784	1	**810014**	125	140	M16	30	25	-	168

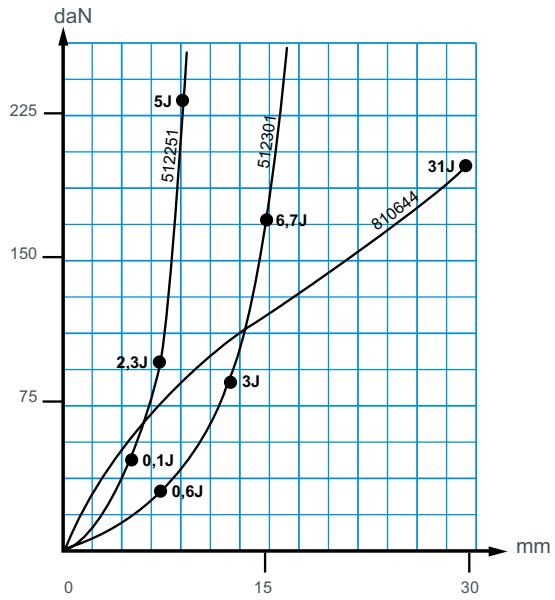
NOTA : The values are given for test conditions with an impact speed of 1 m/s. Consult us for speeds that are much higher.

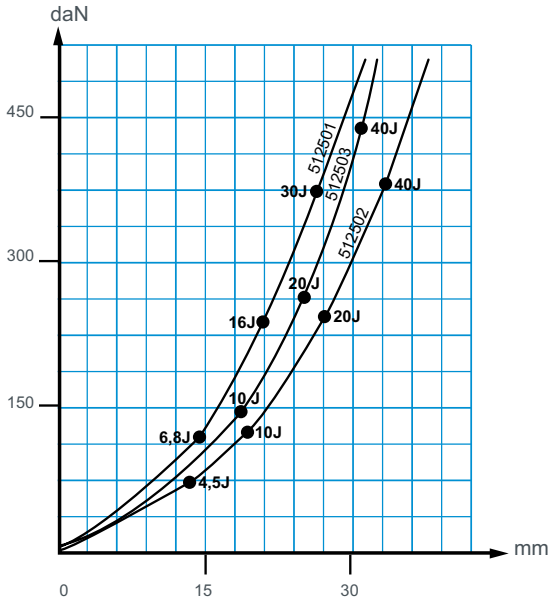


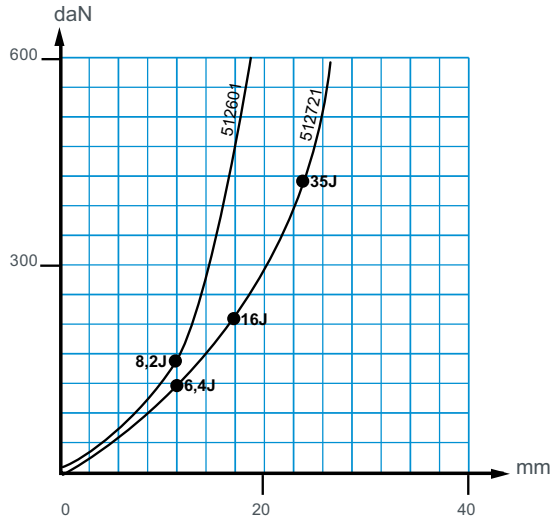


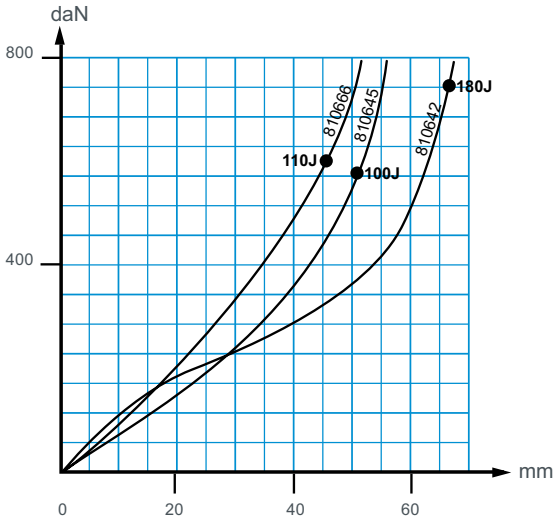
Shape 4

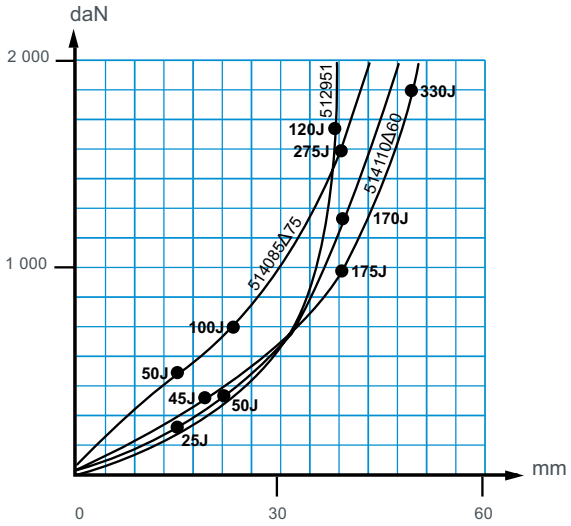
DEFLECTION CURVES AND ENERGY VALUES FOR PROGRESSIVE, LEVAFLEX AND EVIDGOM STOPS

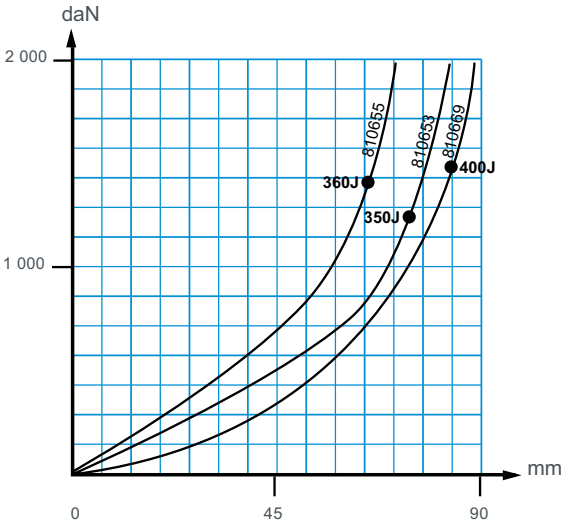


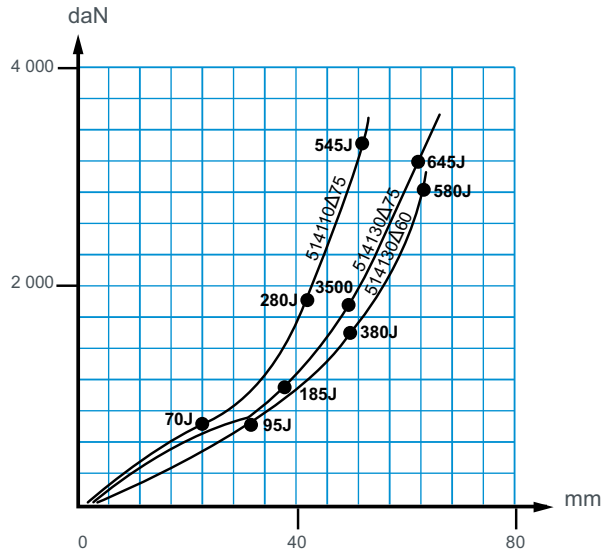








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4 000
2 000
0
40
80
mm
545J
645J
580J
514110Δ75
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514130Δ60
280J
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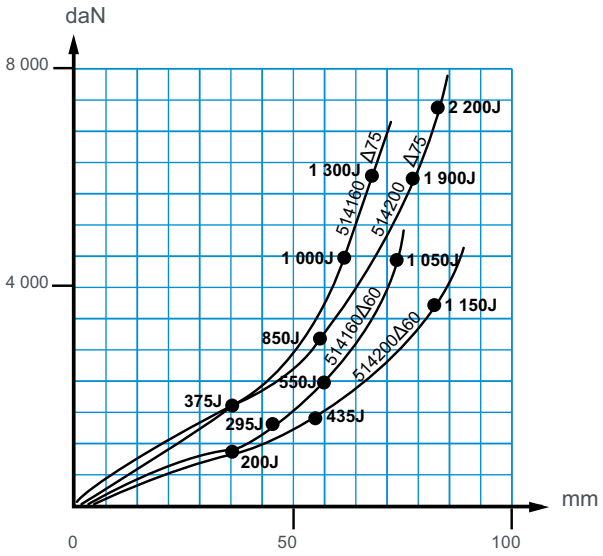
380J
185J
70J
95J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4 000
0
50
100
mm
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1 300J
1 900J
514160Δ75
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1 150J
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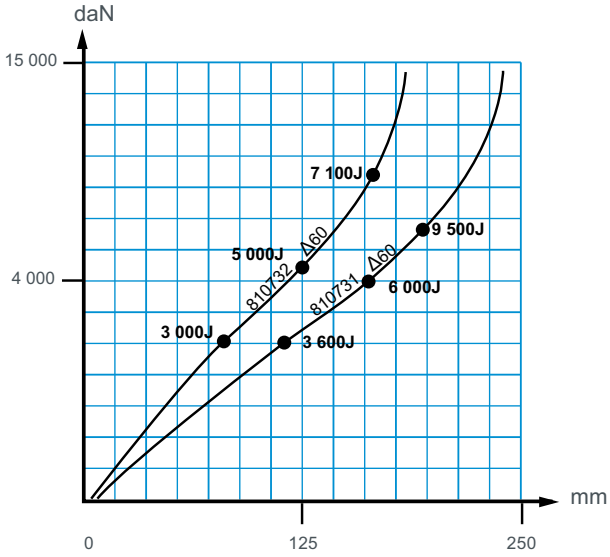
850J
514200Δ60
550J
375J
295J
435J
200J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250
mm
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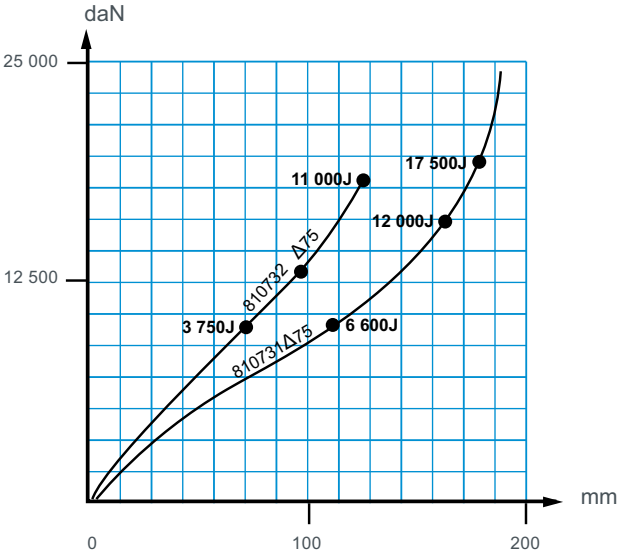
810731
Δ60
6 000J
3 000J
3 600J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200
mm
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Δ75
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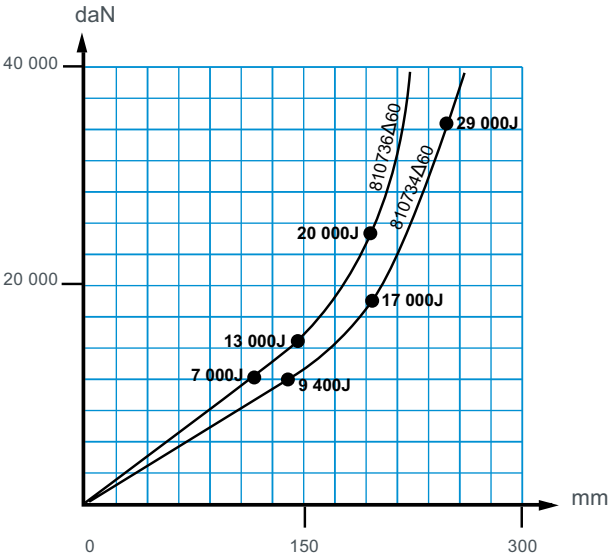
6 600J
810731Δ75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mm
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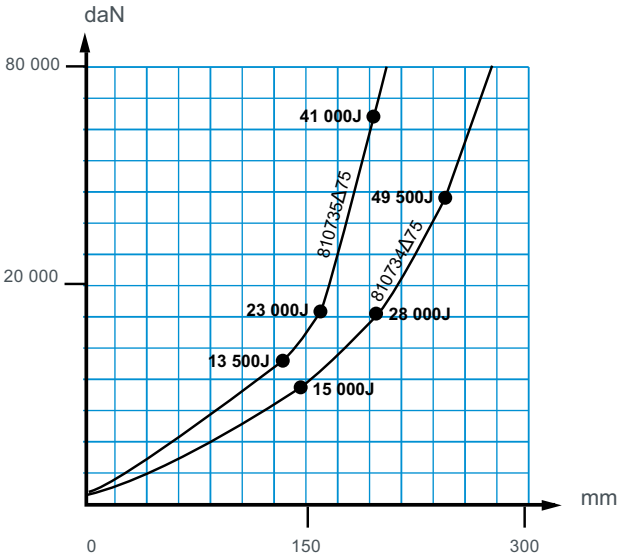
9 400J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mm
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