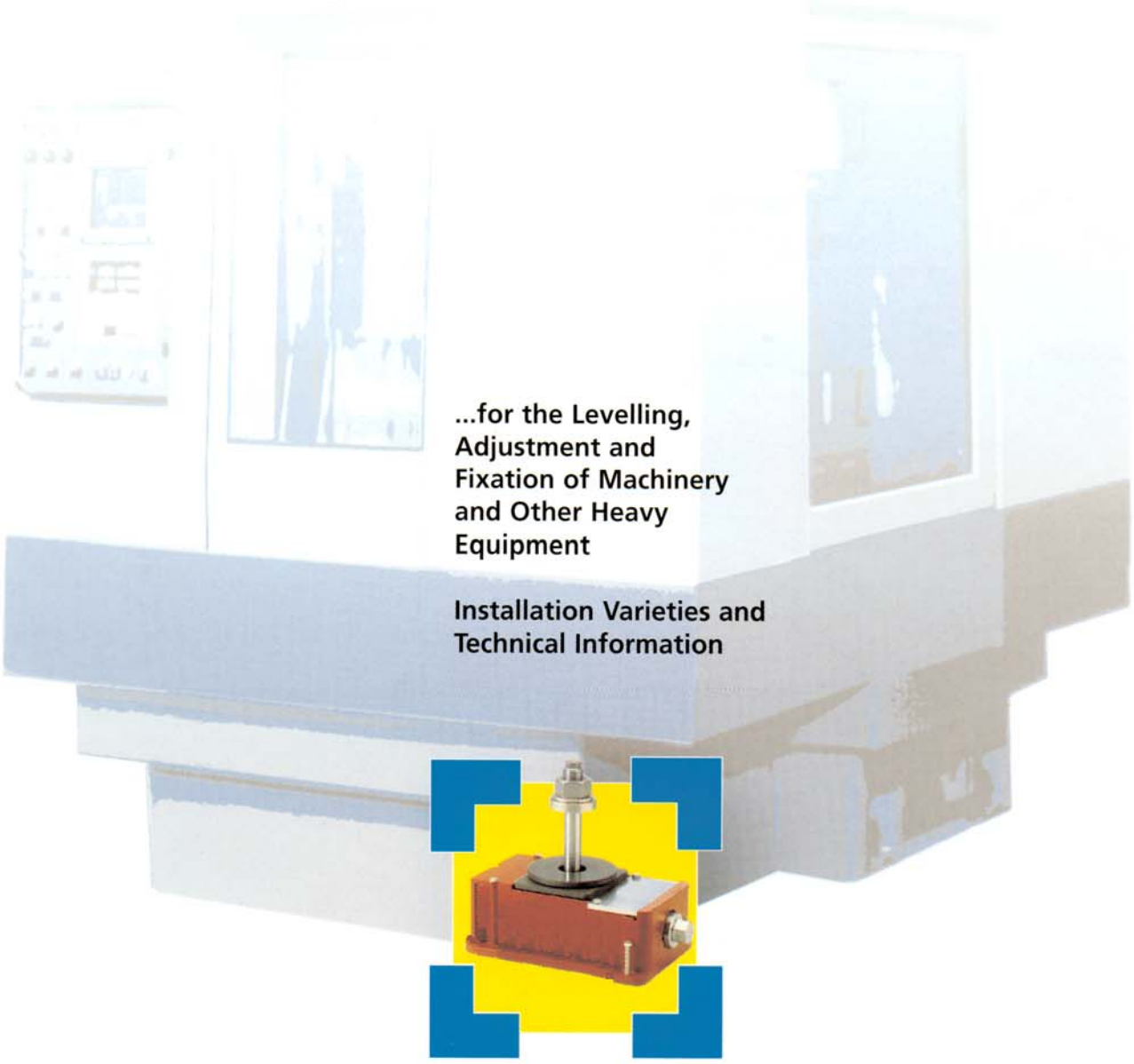
BW-Fixatoren®
Serie EK



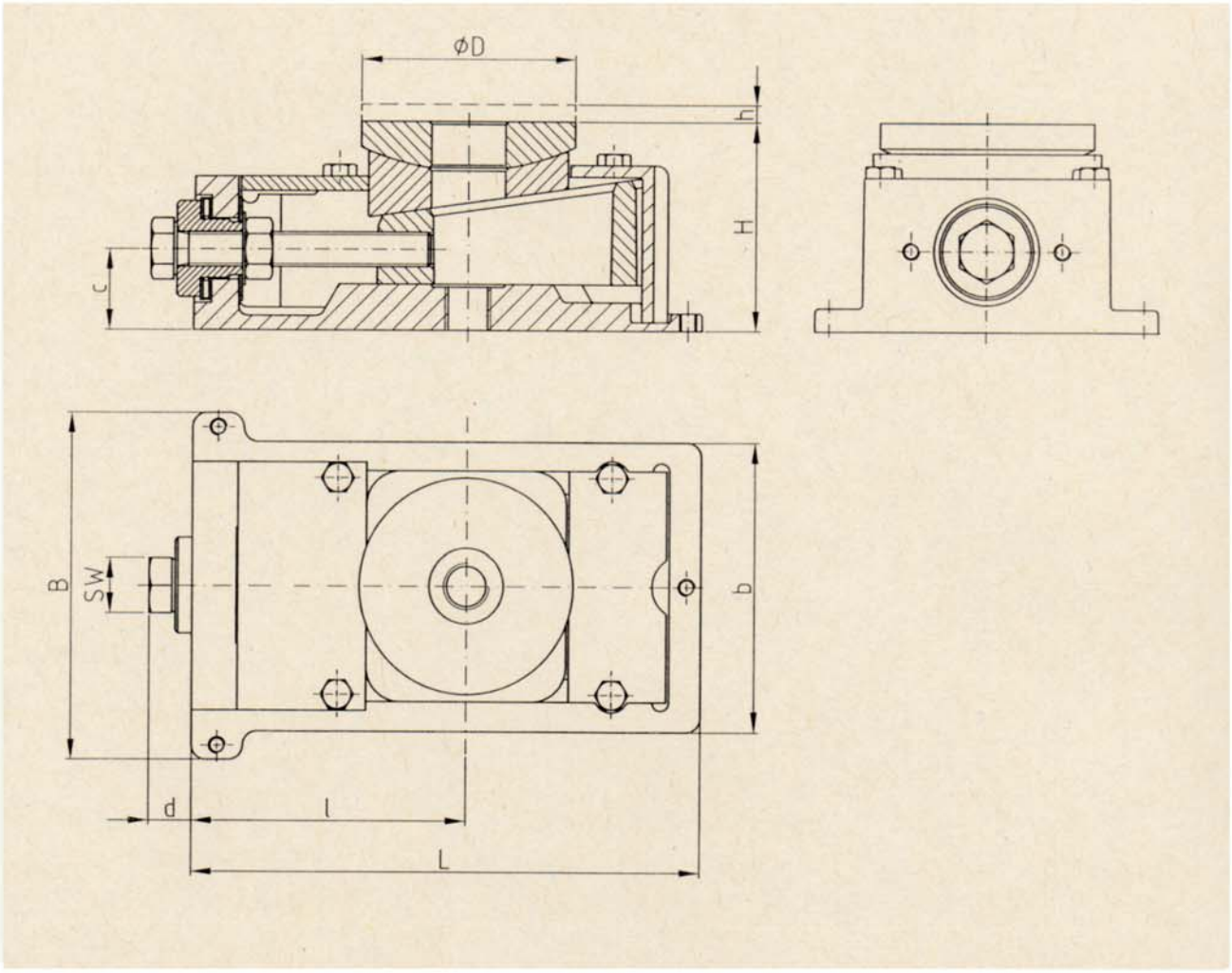
...for the Levelling, Adjustment and Fixation of Machinery and Other Heavy Equipment

Installation Varieties and Technical Information

BWF ...genauer geht's nicht.

Dimensions of Serie EK

GA

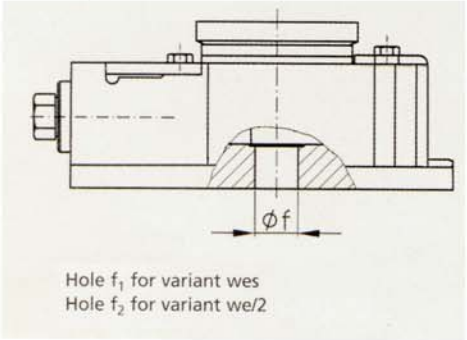


Size	L	B	H	∅D	SW	d	c	h	l	b
II	178	120	72	75	19	15	27	5	96	100
III	220	150	92	90	24	22	36	6	118	120
IV	275	180	110	110	30	34	46	8	142	145

b Machined bottom of the housing, the height is 2 mm less

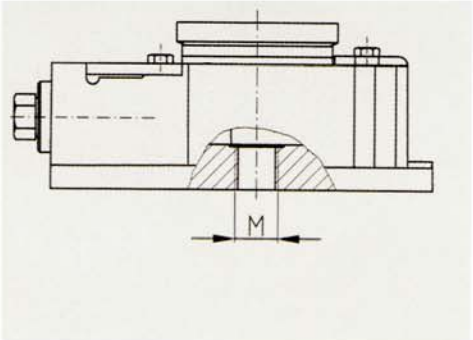
j Alignment Screws for the Pre-installation of BW-Fixators

f1, f2



Hole f_1 for variant wes
Hole f_2 for variant we/2

g



Size	∅f1	∅f2	g
II	21	25	M16
III	25	31	M20
IV	31	37	M24

Technical Data for Serie EK

Size		Dim	EK II	EK III	EK IV
Permissible maximum load[1])		N	120 000	240 000	360 000
Recommended machine dead weight[2])		N	20 000	40 000	60 000
Spring constant in operation range[3])		N/μm	5 000	7 500	10 000
Torque at adjusting screw	Specific	$\frac{N \cdot m}{10^3\ kg}$	3	4	4,5
	Maximum	N·m	36	96	160
	Security	N·m	2,5-5	3,5-7	4-8
Vertical Adjustment per screw turn		mm	0,25	0,29	0,35
Weight of basic unit		kg	4,5	9	17

[1]) BW-Fixators® are adjustable up to this load.
[2]) This is the standard factor for the determination of the BW-Fixator® size.
[3]) Found by applying a changing load equal to the recommended proportional machine load. The operating range will be covered when the machine has been-levelled and bound down with the anchor bolts.

Formula for calculating the Resilience of BW-Fixators® Serie EK

$$\Delta f[\mu m] = \frac{\Delta F}{c} = \frac{\text{Load change N}}{\text{Spring constant N/}\mu m}$$

Note:
The total of the forces a - e exerted must not exceed the permissible maximum load

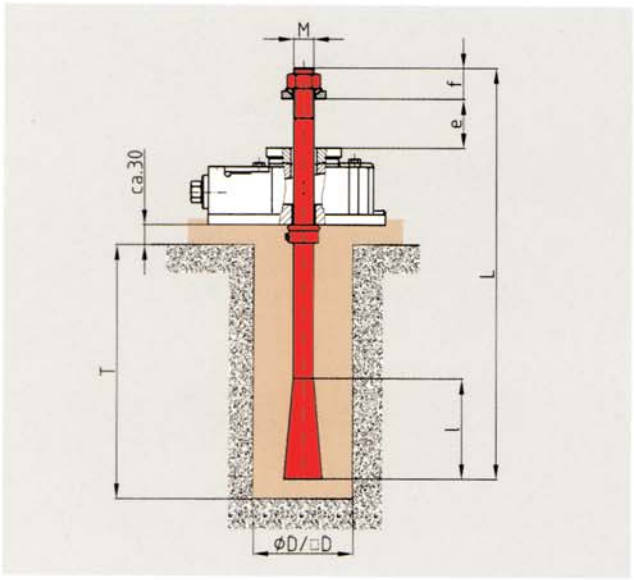
a) Proportional machine load
b) Tensile force exerted by anchor bolt
c) Dynamic forces
d) Changing loads (moving machine parts or workpieces)
e) Forces counteracting moments

Determination of BW-Fixator® size

The proportinal machine load recommended is a function of the net weight of the machine devided by the number of support points (BW-Fixators®).

For machinery with sizable variations in partial weight, it is the heaviest machine load that has to be devided by the number of bearing points and the resulting BW-Fixator® size has to be used everywhere under the machine.

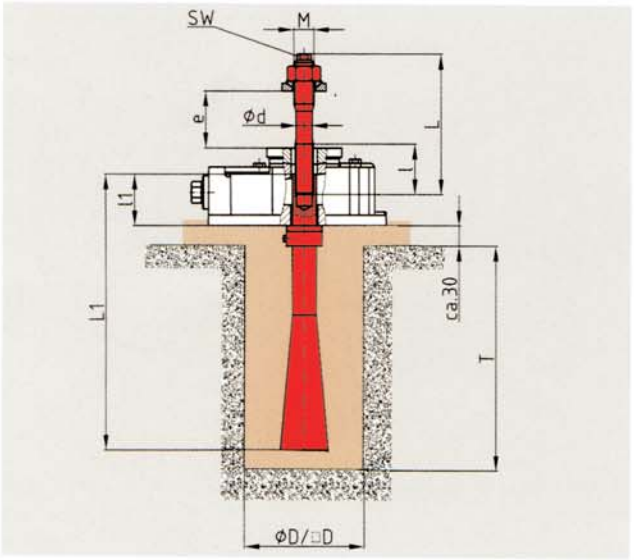
Anchor bolts and studs



wes

Anchor bolt for direct connection of the machine to the foundation

EK	M	L	l	f	e from	e to	Foundations D	Foundations T	Clamping force max. N
II	M20	400	100	40	20	90	80	270	81 000
III	M24	500	135	50	30	100	100	340	115 000
IV	M30	600	150	55	35	135	120	410	182 000



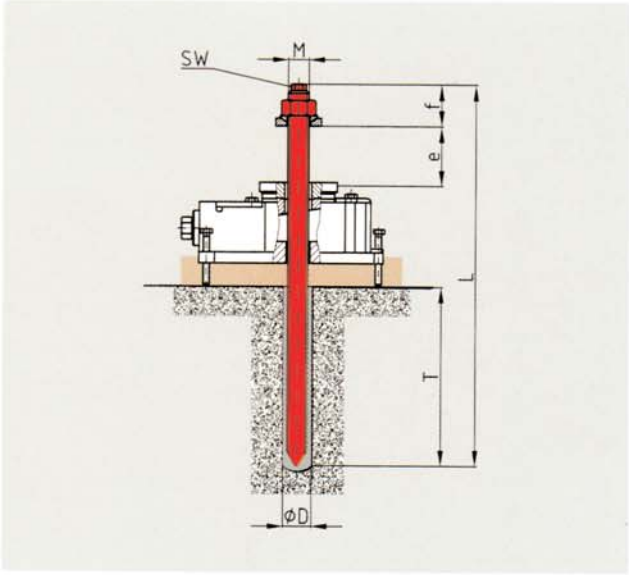
we/2

Split anchor bolt for direct connection of the machine to the foundation

Note:
Specify dimension „e" (thickness of machine leg) in your order

EK	M	L1	l1	∅ d	short L	short l	e from	e to	long L	long l	e from	e to	Foundations D	Foundations T	Clamping force max. N
II	M20	275	43	16	140	50	20	50	190	80	55	100	100	220	81 000
III	M24	360	59	19	165	60	30	60	225	90	65	120	120	290	115 000
IV	M30	450	80	24	190	70	35	70	255	110	75	135	150	360	182 000

Anchor bolts and studs

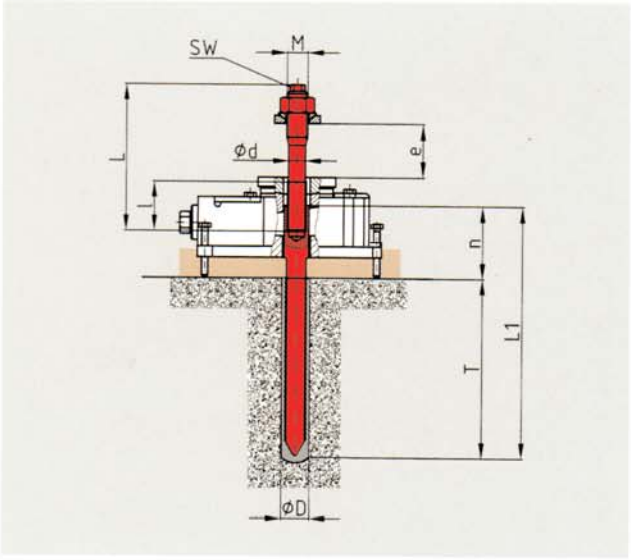


due

Resin anchor
(Capsule and stud)

EK	M	L	SW	f	e from	e to	Hole ∅D	Hole T	Clamping force* max. N
II	M20	400	10	40	20	90	25	170	27 000
III	M24	450	–	50	20	70	28	210	37 000

*Concrete >= B25



due/2

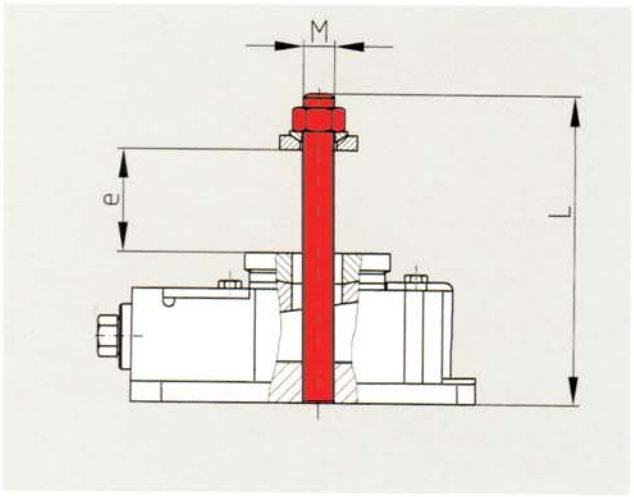
Split resin anchor
(Capsule and split stud)

Note:
Specify dimension „e"
(thickness of machine leg)
in your order

EK	M	∅d	SW	short L	short l	e from	e to	long L	long l	e from	e to	L1	n	Hole ∅D	Hole T	Clamping force* max.N
II	M20	16	13	140	50	20	50	190	80	55	100	240	70	25	170	27 000
III	M24	19	17	165	60	30	60	225	120	65	120	290	80	28	210	37 000

*Concrete >= B25

Anchor bolts and studs



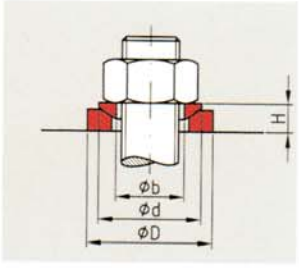
ste

Short or long stud bolt
for attaching the machine
to the BW-Fixator®

Note:
Specify dimension „e"
(thickness of machine leg)
in your order

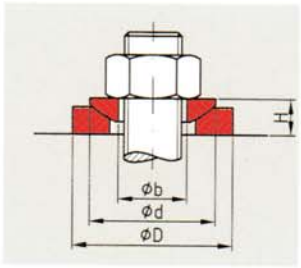
EK	M	L short	e from	e to	L long	e from	e to	Clamping force max. N
II	M16	150	20	40	180	40	70	53 000
III	M20	175	20	40	260	40	75	81 000
IV	M24	210	20	50	240	50	80	115 000

Other applications



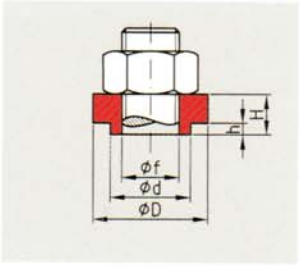
p Spherical washer set for non-parallel bearing surfaces

EK	∅D	H	∅d	∅b
M16	40	9	30	17
M20	44	10	36	21
M24	56	13	44	25
M30	68	16	56	31



r Large spherical washer set for non-parallel bearing surfaces

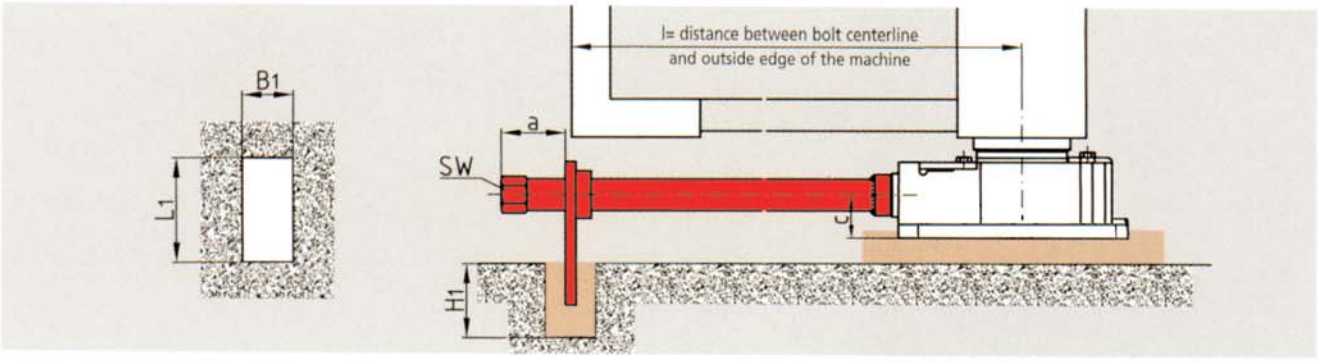
EK	∅D	H	∅d	∅b
M16	44	10	36	17
M20	56	13	44	21
M24	68	16	56	25
M30	80	16	56	31



z Foam centering bushing for the concentric location of the anchor bolts in the machine foot holes

EK	∅f	∅D	H	∅d	h
II	20,2	40	14	28	4
III	24,2	44	18	32	5
IV	30,2	54	21	42	5

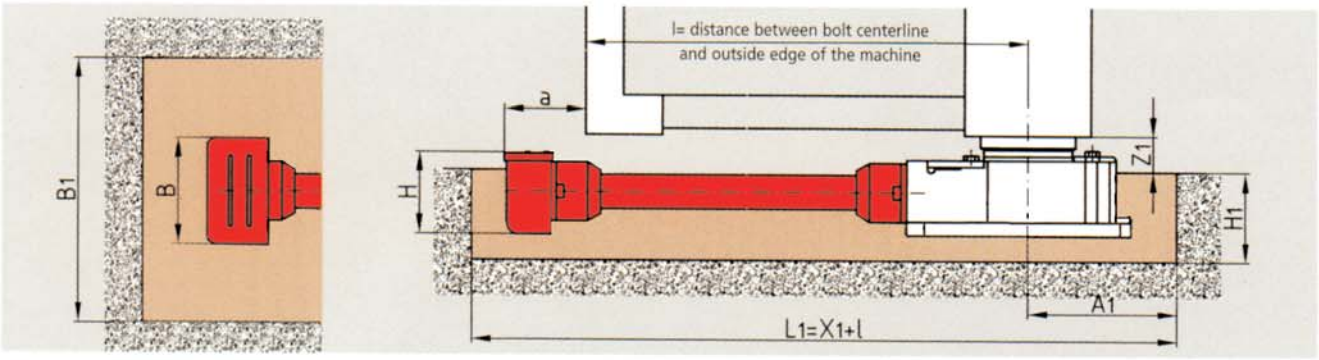
Other applications



EK	a	c	SW	Minimum length l	Tube	Foundations L1	B1	H1
II	50	27	22	140	24 x 4	80	40	70
III	50	36	22	170	24 x 4	80	40	90
IV	50	46	32	200	38 x 5	100	50	100

le

Extended set screw on BW-Fixator® arranged inwards of the machine side

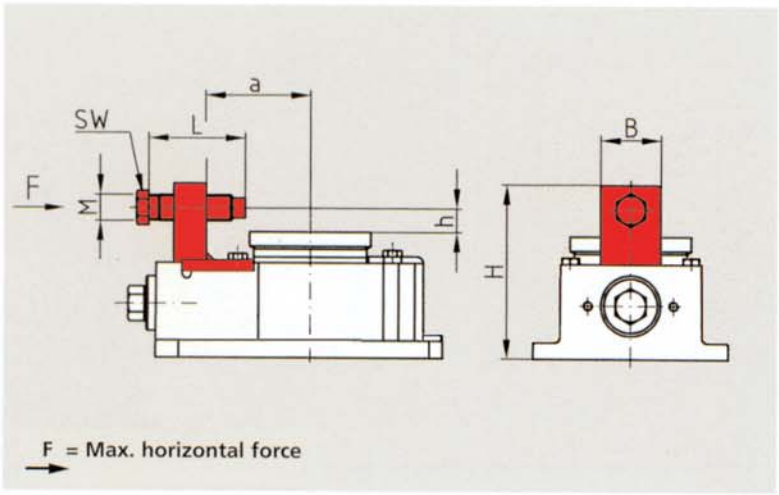


EK	a	B	H	Minimum length l	A1	Z1	Foundations B1	H1	X1
II	65	92	59	140	140	25	200	80	240
III	72	92	59	180	160	30	250	100	270
IV	75	136	96	240	200	35	300	120	320

les

Extended set screw on flush-mounted BW-Fixator® arranged inwards of the machine side

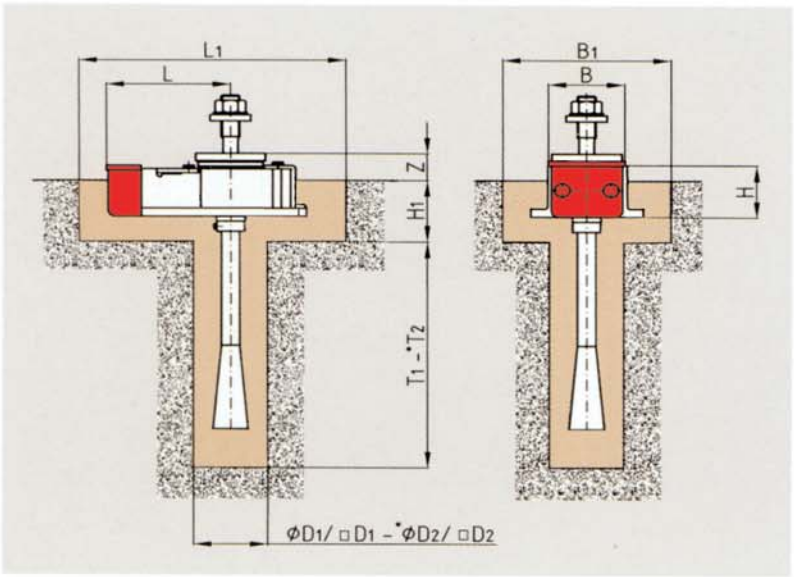
Other applications



d

Lateral adjuster for adjusting machine location

EK	M	L	SW	H	B	a	h	F N
II	M16	60	19	106	30	67	16	25 000
III	M16	80	19	116	30	90	16	30 000
IV	M20	100	24	140	40	110	20	40 000



m

Set screw guard on flush mounted BW-Fixator®
Foundations at combination of variants **m** and **wes**

EK	L	B	H	Z	Foundations L1	H1	B1	D1	*Foundations 2 T1	D2	T2
II	138	92	59	25	310	80	200	80	270	100	360
III	160	92	59	30	380	100	250	100	340	120	430
IV	206	136	96	35	450	120	300	120	410	150	590

*Foundations 2 in connection with the next size of anchor bolts

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