

### All figures refer entirely to default situations

#### References

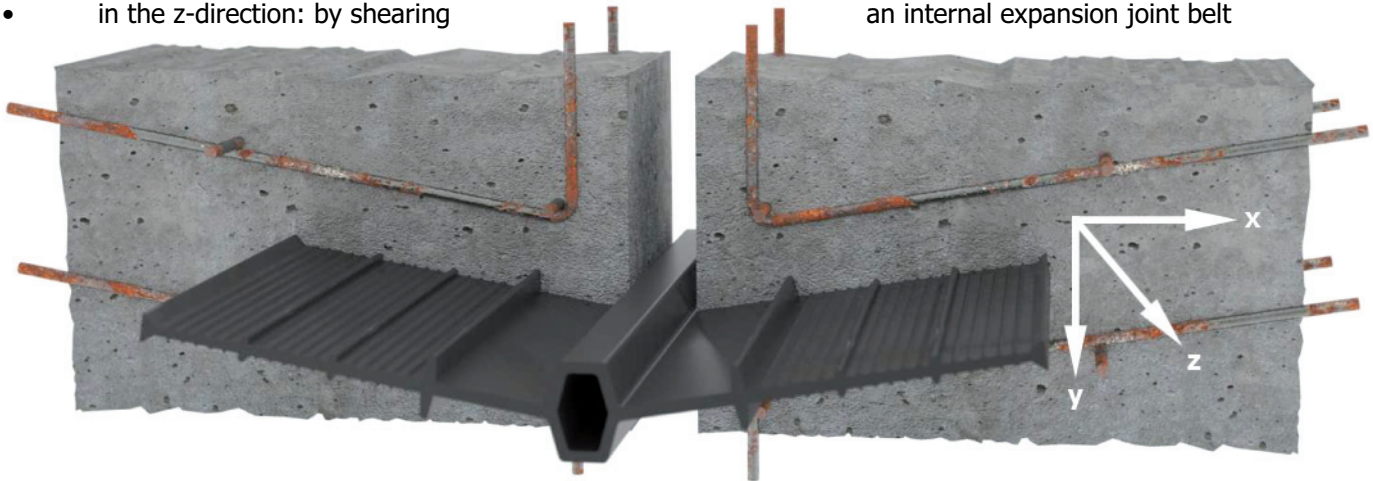
- When using internal joint belts, the component thickness shall not be less than the width of the joint belt (exception: for internal joint belts with a width of 320 mm a component thickness of 300 mm is sufficient) These conditions apply for internal construction- and expansion joint belts
- Valid for a nominal joint width (starting joint width)  $W_{nom}$ :
 

internal joint belts:	20 - 30 mm
external joint belts:	20 mm
capping joint belts:	20 - 30 mm

#### Possible movements for expansion and capping joint belts

- in the x-direction: by compression and tension
- in the y-direction: by shearing
- in the z-direction: by shearing

Example of construction movement for an internal expansion joint belt



#### Calculation of the resulting deformation ( $V_r$ ) calculation example

$$V_r = \sqrt{V_x^2 + V_y^2 + V_z^2} \quad \text{Example: } V_r = \sqrt{10^2 + 10^2 + 5^2} = 15 \text{ mm}$$

#### Permissible Deformations

- See rated diagram, page 2 – 10 (in relation to water pressure)
- Boundary conditions:
 

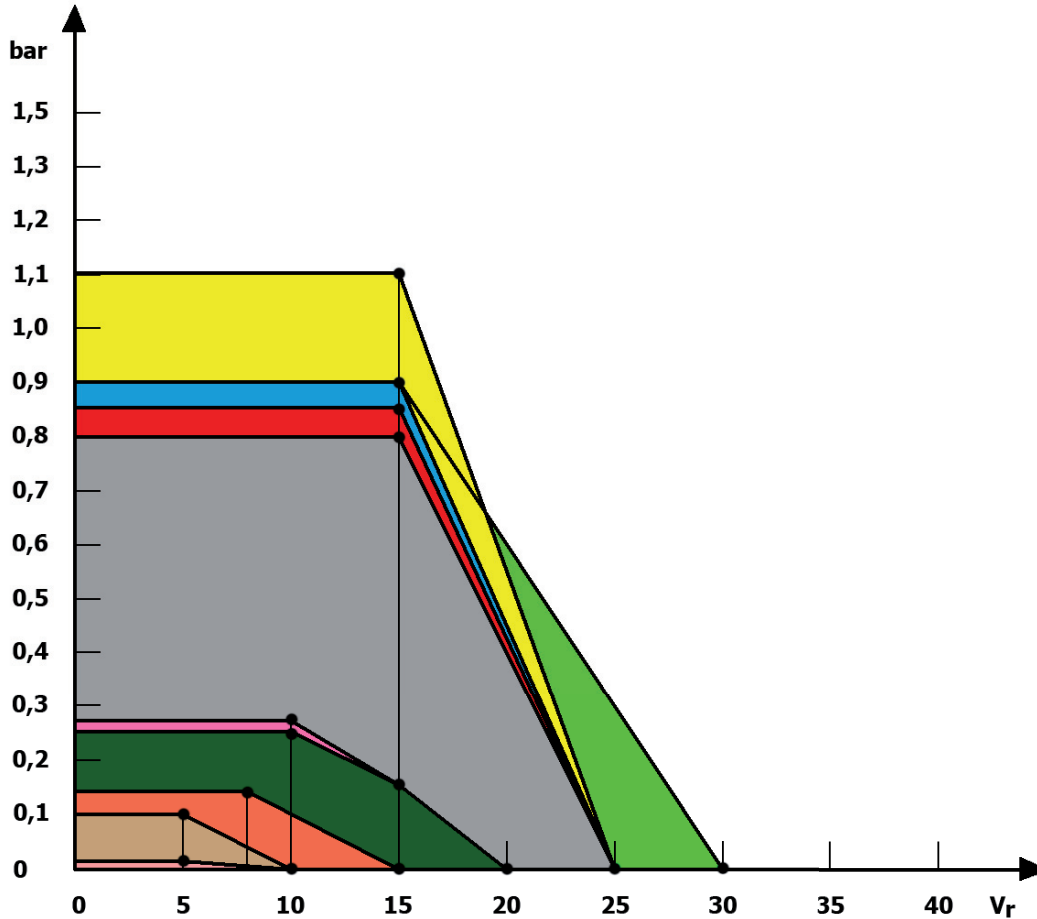
$V_x$ :	at $W_{nom} = 20 \text{ mm}$ : $W_{min} \geq 15 \text{ mm}$
	at $W_{nom} = 30 \text{ mm}$ : $W_{min} \geq 20 \text{ mm}$
$V_y$ :	$\leq W_{nom}$
$V_z$ :	$\leq W_{nom}$

- $W_{nom}$  = designed joint width in construction planning at the time of construction creation
- $V_x$  = deformation in x-direction
- $V_y$  = deformation in y-direction
- $V_z$  = deformation in z-direction

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### Internal expansion joint belt PVC-P according to company standard NB and BV Internal construction joint belt PVC-P according to company standard NB and BV (only with max. water pressure)



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
DDS 32	1,10	25
D 50	0,90	30
DEM 32	0,90	25
D 35	0,85	25
D 32	0,80	25
DEM 25	0,27	20
D 24	0,25	20
D 19	0,14	15
D 15	0,10	10
D 11	0,01	10

Type	Maximum water pressure (bar)
A 50	0,90
Flex 32	0,85
A 32	0,80
Flex 24 / Flex 24 SL	0,28
A 24	0,25
Flex 19 / Flex 19 SL	0,17
A 19	0,14
Flex 15	0,12
A 15	0,10
Flex 10	0,02
A 10	0,01
A 11	0,01

If the values of the selection chart will be exceeded, higher deformation or water pressure could be defined after clearance with the supplier. Therefor further tests or calculations are necessary.

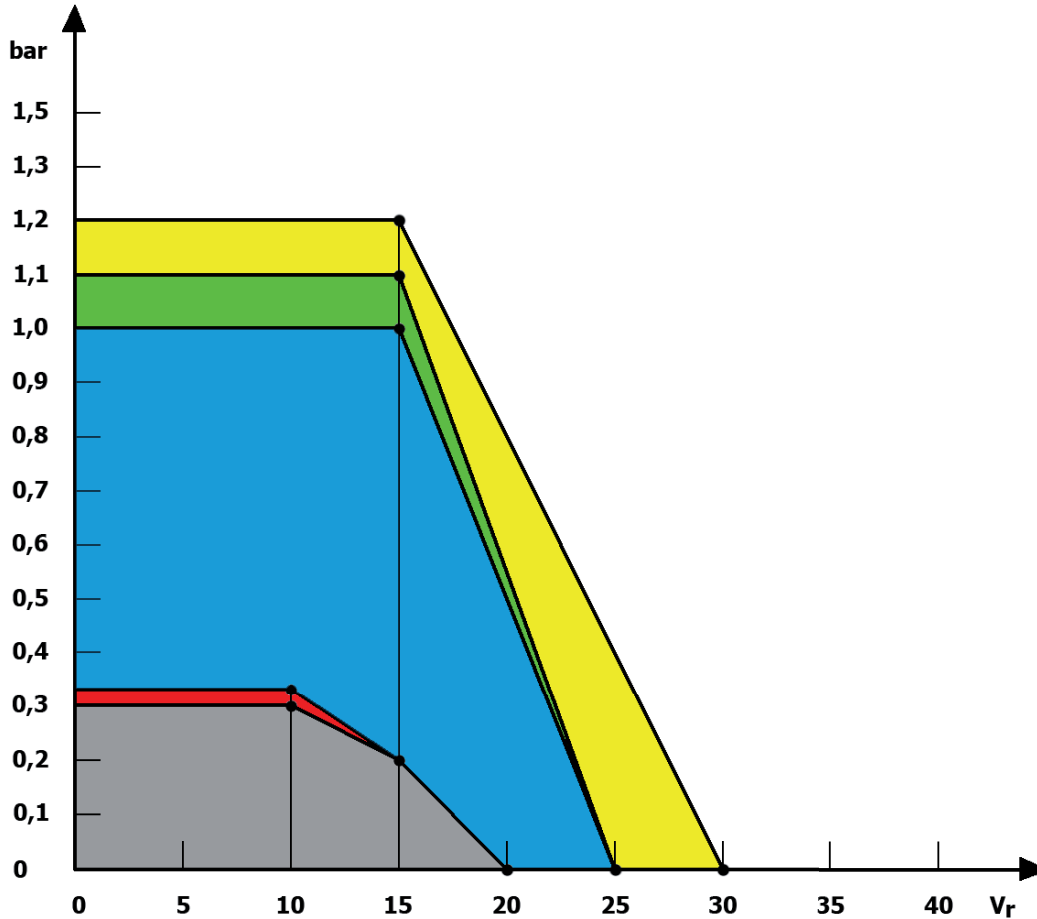
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### Internal expansion joint belt according to DIN 18541 NB and BV

Internal construction joint belt according to DIN 18541 NB and BV (only with max. water pressure)



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
D 500 DIN	1,20	30
D 320/6 DIN	1,10	25
D 320 DIN	1,00	25
D 240/6 DIN	0,33	20
D 240 DIN	0,30	20

Type	Maximum water pressure (bar)
A 500 DIN	1,20
A 320 DIN	1,00
A 240 DIN	0,30

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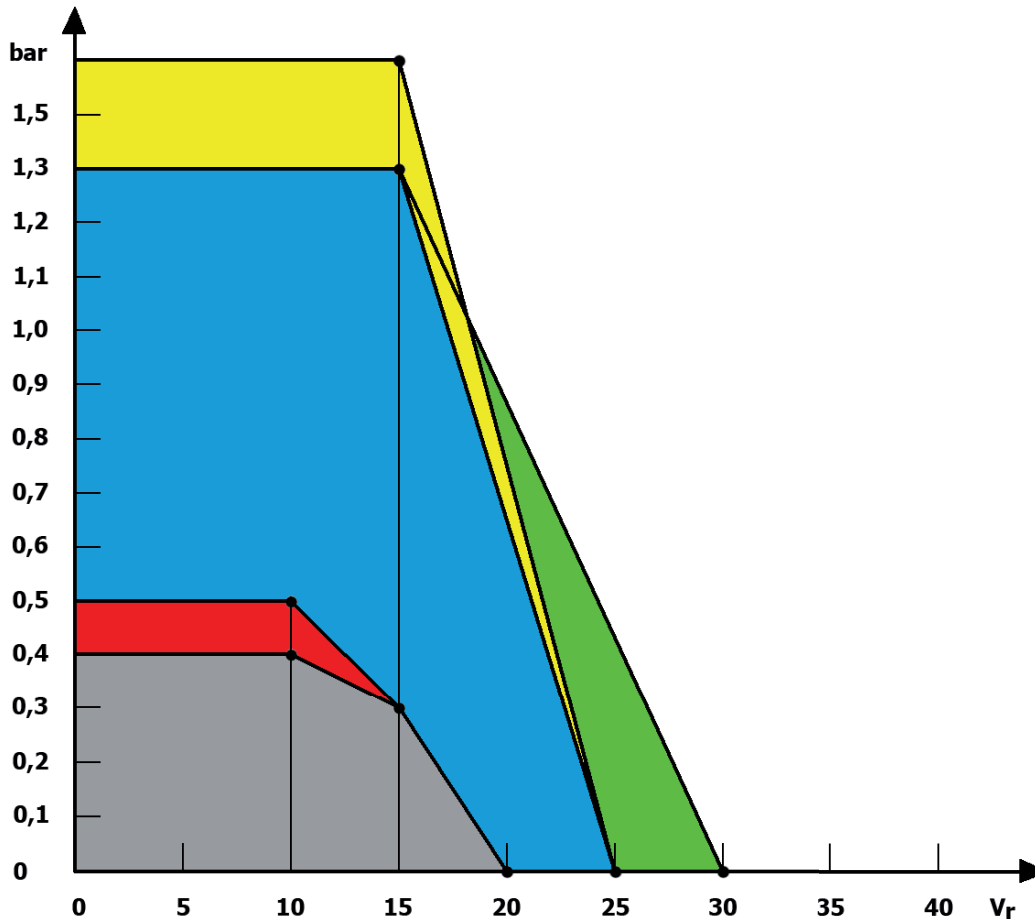
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### Internal expansion joint belt - PVC-P according to company standard „MEISTERMER“ Internal construction joint belt - PVC-P according to company standard „MEISTERMER“ (only with max. water pressure)



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
DSTM 32	1,60	25
DTM 50	1,30	30
DTM 32	1,30	25
DSTM 25	0,50	20
DTM 25	0,40	20

Type	Maximum water pressure (bar)
ATM 32	1,25
ATM 24	0,40

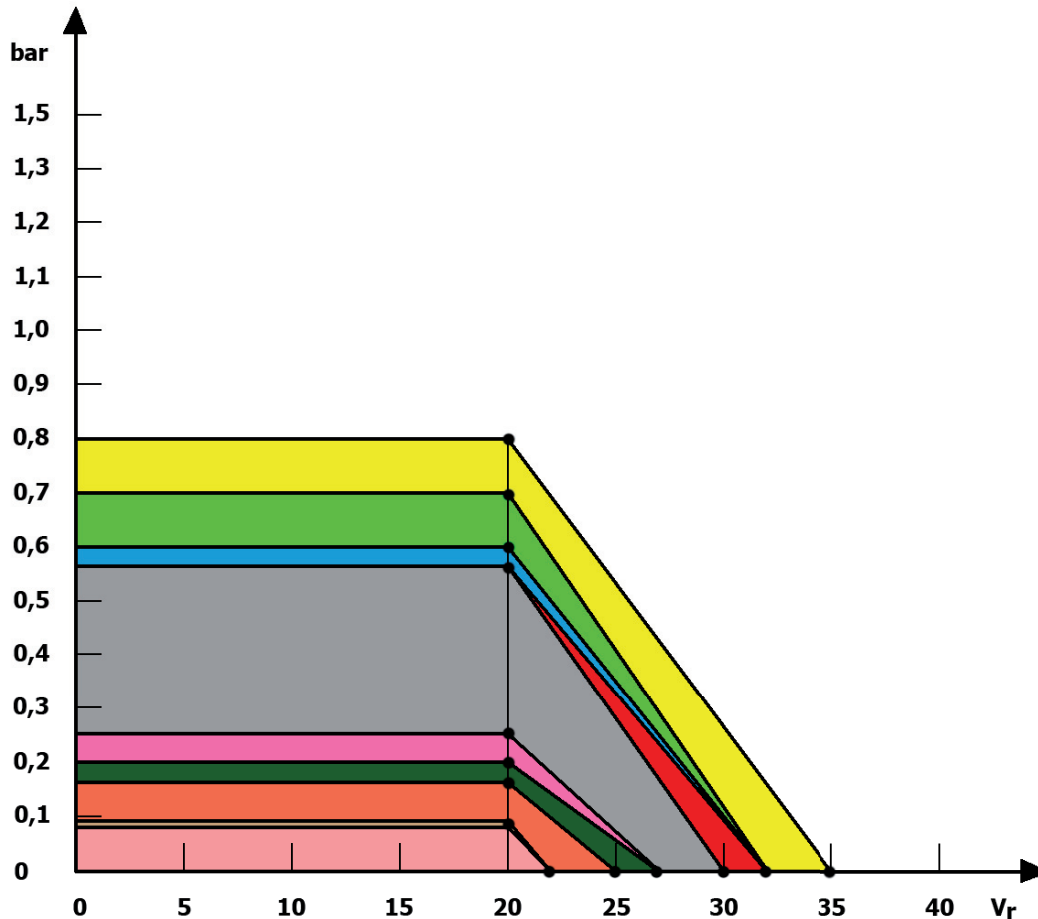
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### External expansion joint belt PVC-P according to company standard NB and BV

External construction joint belt PVC-P according to company standard NB and BV (only with max. water pressure)



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
AD 50/3/8	0,80	35
AD 50/2/8	0,70	32
AD 50/3/6	0,60	32
AD 50/2/6	0,56	32
AD 32/3/6	0,56	30
ADS 32	0,25	27
AD 32	0,20	27
AD 24/3/4	0,16	25
ADS 24	0,09	22
AD 24	0,08	22
AD 19	0,00	20

Type	Maximum water pressure (bar)
AA 50/3/8	0,80
AA 50/2/8	0,70
AA 50/3/6	0,60
AA 50/2/6	0,56
AA 32/3/6	0,56
AAS 32	0,25
AA 32	0,20
AA 24/3/4	0,16
AAS 24	0,09
AA 24	0,08
AA 19	0,00

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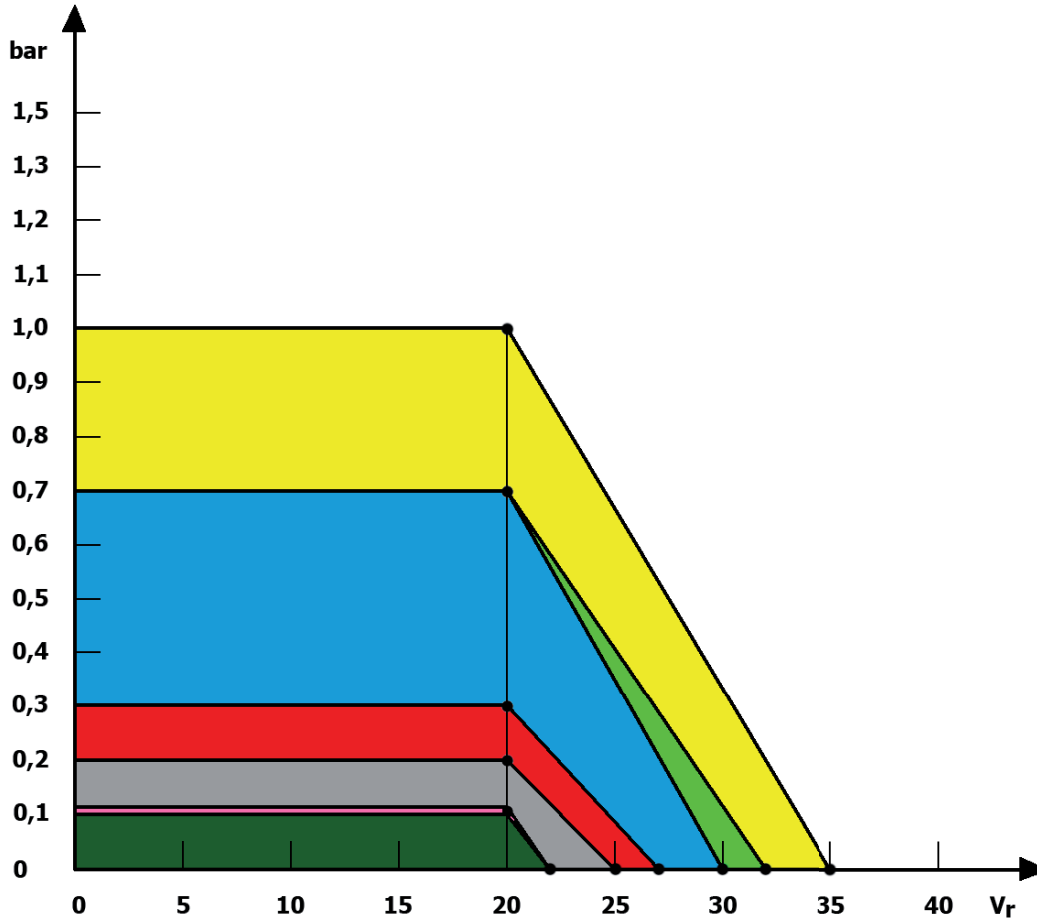
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### External expansion joint belt according to DIN 18541 NB and BV

External construction joint belt according to DIN 18541 NB and BV (only with max. water pressure)



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
DA 500/30 DIN	1,00	35
DA 500 DIN	0,70	32
DA 320/30 DIN	0,70	30
DA 320 DIN	0,30	27
DA 240/30 DIN	0,20	25
DA 240/20 DIN	0,11	22
DA 240 DIN	0,10	22

Type	Maximum water pressure (bar)
AA 500/30 DIN	1,00
AA 500 DIN	0,70
AA 320/30 DIN	0,70
AA 320 DIN	0,30
AA 240/30 DIN	0,20
AA 240/20 DIN	0,11
AA 240 DIN	0,10

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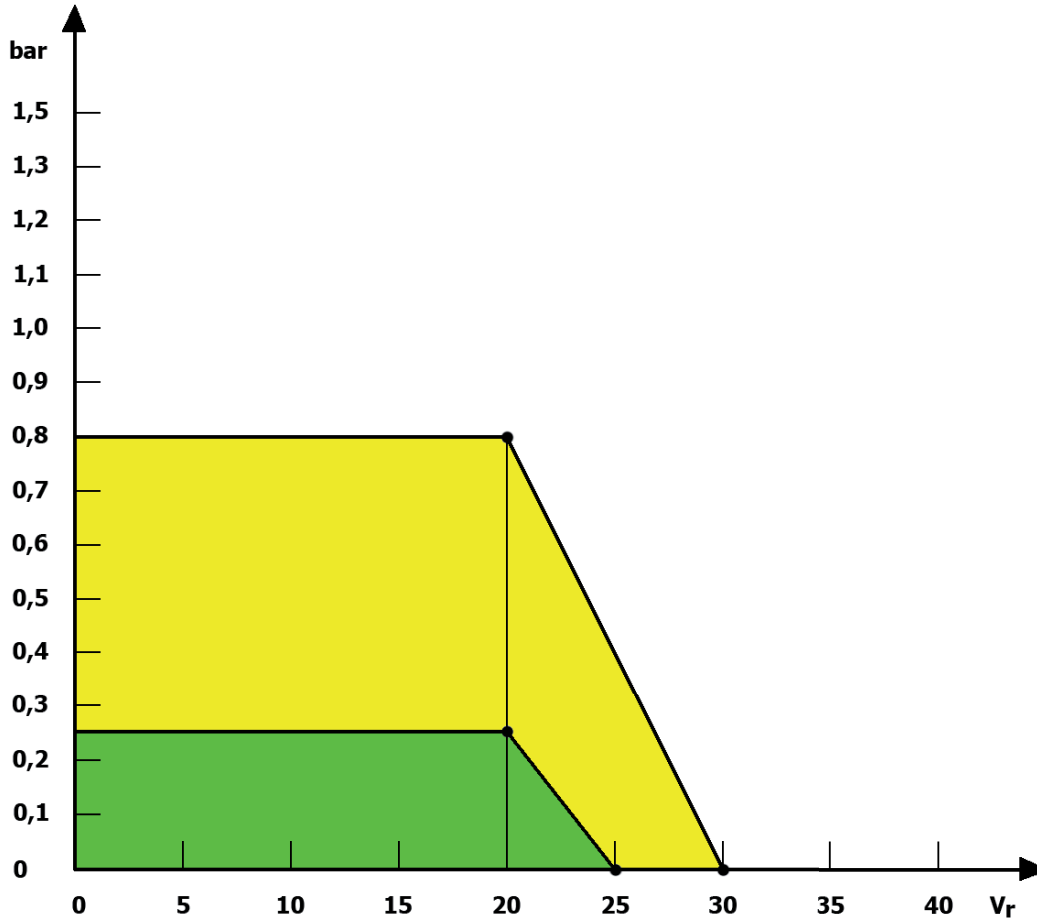
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### External expansion joint belt - PVC-P according to company standard „MEISTERMER“ External construction joint belt - PVC-P according to company standard „MEISTERMER“ (only with max. water pressure)



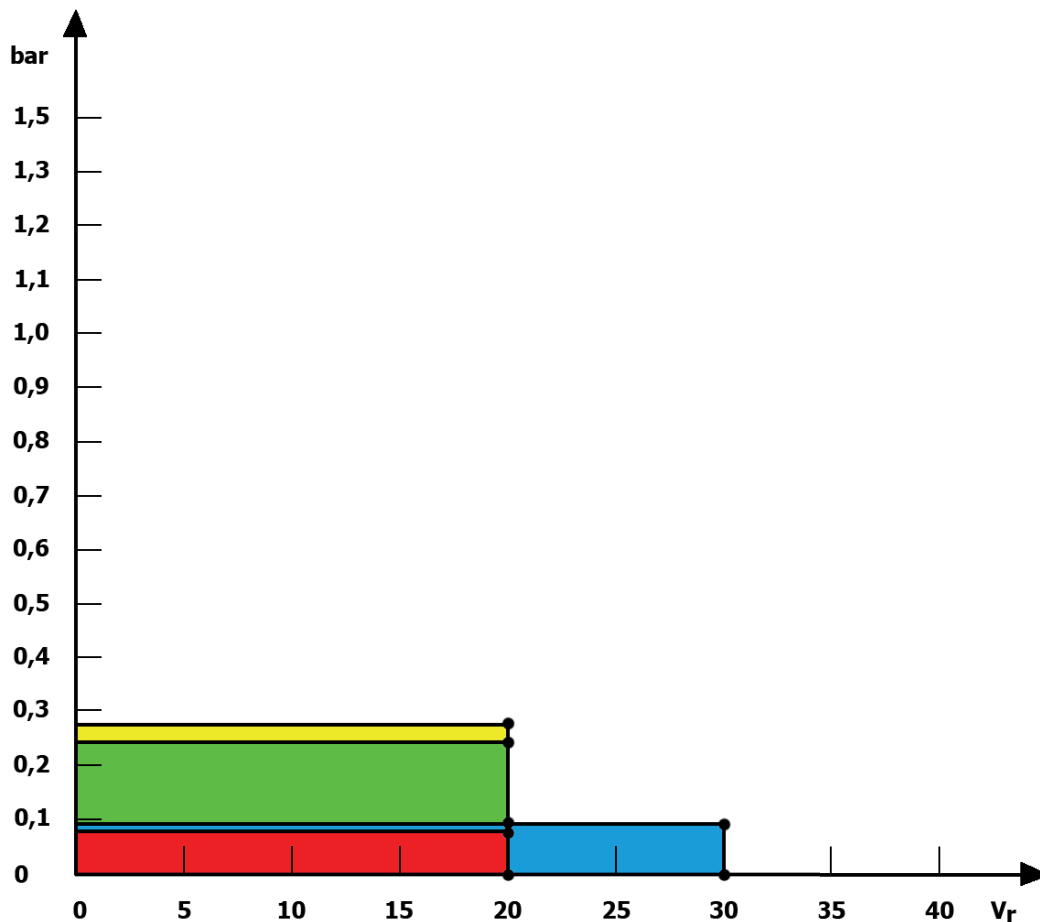
Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)	Type	Maximum water pressure (bar)
ADTM 32	0,80	30	AATM 32	0,80
ADTM 25	0,25	25	AATM 25	0,25

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### Capping joint belt PVC-P according to company standard NB and BV



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
FV 140/30/30	0,27	20
FV 140/30-130	0,24	20
FV 140/30	0,24	20
FV 140/60	0,09	30
FV 140/40	0,09	30
FV 100/30	0,08	20
FV 70/50/40	0,00	40
FV 70/30/40	0,00	40
FV 50/30/30	0,00	20
FV 50/30	0,00	20
FV 50/20/30	0,00	10
FV 50/20	0,00	10

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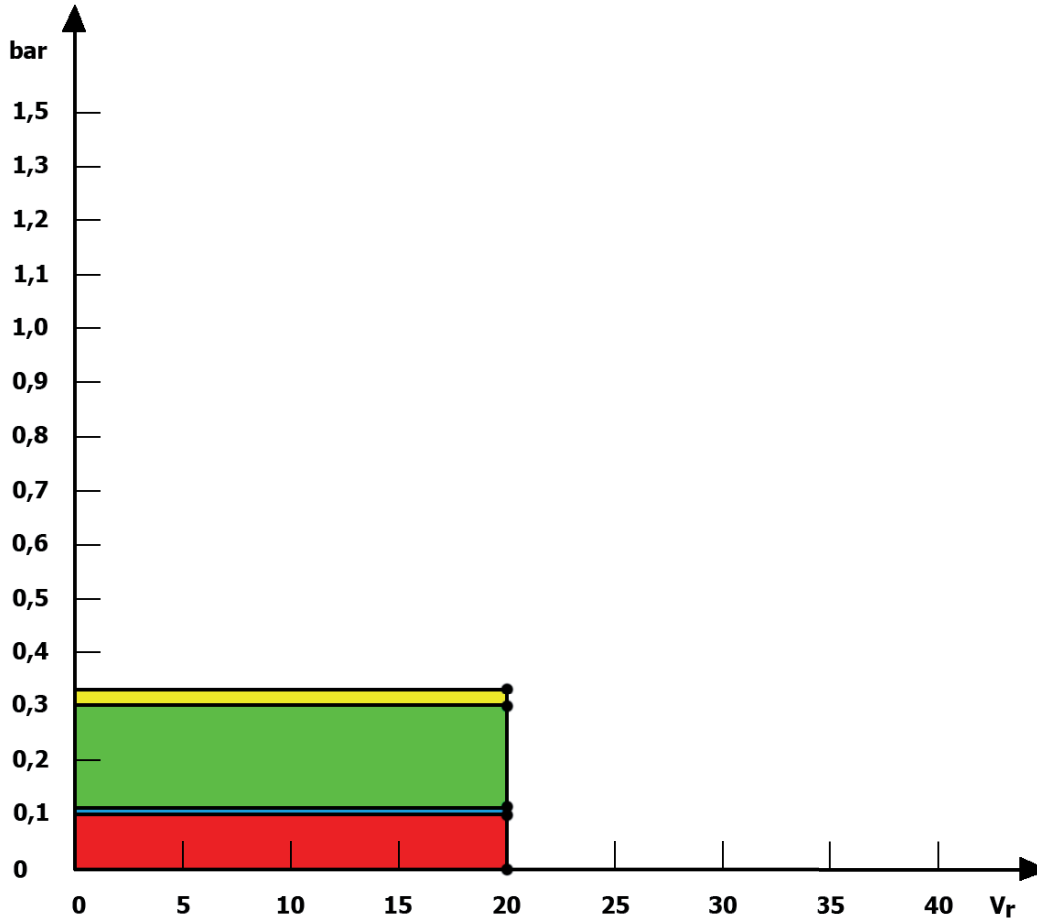
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### Capping joint belt according to DIN 18541 NB and BV



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
FA 130/30/30 DIN	0,33	20
FA 130/30 DIN	0,30	20
FA 90/30/30 DIN	0,11	20
FA 90/30 DIN	0,10	20
FA 70/50/40 DIN	0,00	40
FA 70/30/40 DIN	0,00	40
FA 50/30/30 DIN	0,00	20
FA 50/30 DIN	0,00	20

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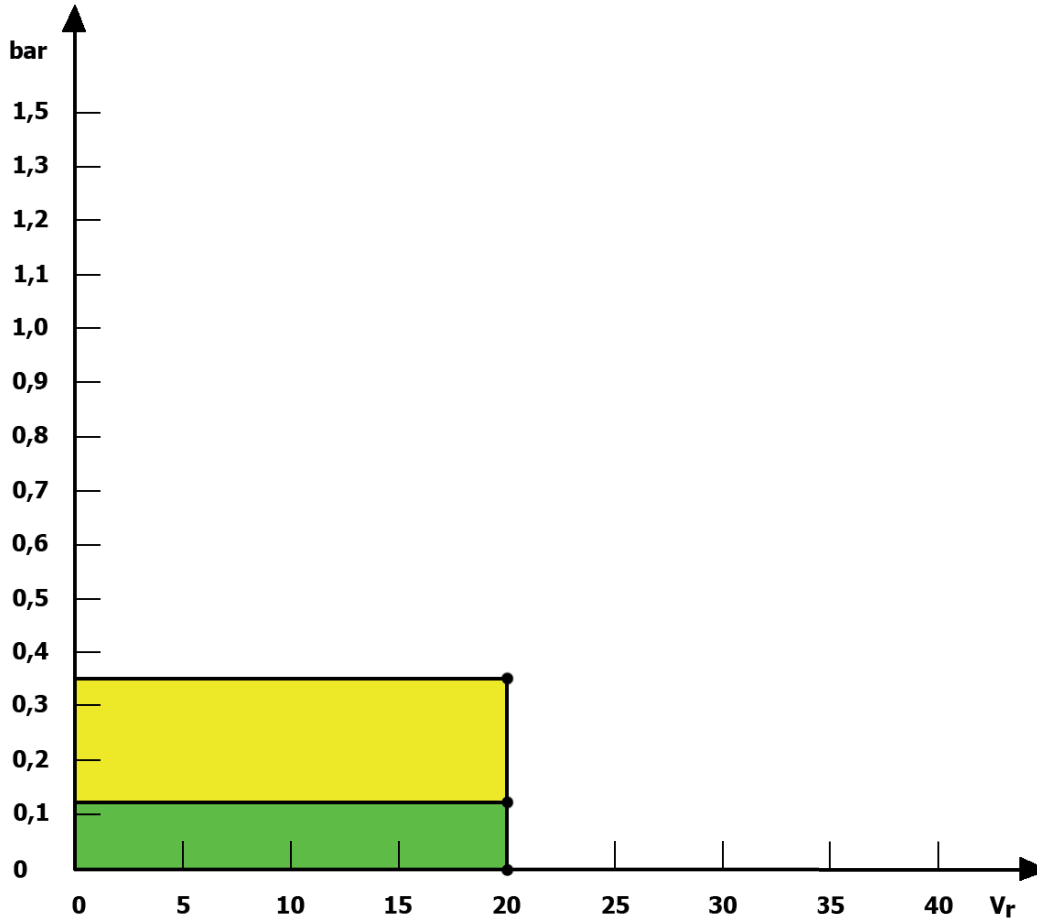
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### Capping joint belt - PVC-P according to company standard „MEISTERMER“



Type	Maximum water pressure (bar)	Maximum resulting deformation $V_r$ (mm)
FVTM 140/30 P	0,35	20
FVTM 140/30	0,35	20
FVTM 100/30	0,12	20
FVTM 70/50/40	0,00	40
FVTM 70/30/40	0,00	40
FVTM 50/30/30	0,00	20
FVTM 50/20/30	0,00	10

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