

NewXS Fixturing system

Catalogue 2016^{E06}



Modular fixturing system
for optical measuring and
checking instruments





Hightech in Aluminium

Witte was founded in 1969 and initially manufactured complex, high-precision parts for the aerospace industry. Today Witte has developed into a leading manufacturer of fixturing systems and gauges for all kinds of applications.

Almost all leading companies from automotive and aircraft industries now rely on Witte technology in order to maintain high quality in their production process.

Among a broad range our emphasis lies on development and manufac-

ture of advanced workpiece clamping systems for universal application. Witte has taken up the lead in the branches of „flexible fixturing“ and „vacuum technology“ as a result of many patented solutions.

The high quality of all Witte products and internal processes is verified according to various certificates on European level.

Qualified staff and a modern machine shop are further guarantees for quality.





NewXS Clamping System2
 ■ Introduction

NewXS 16 Basic components8
 ■ Frames, Bars, Lugs

NewXS 16 Stop and alignment components13
 ■ Centers, Stops

Clamping components16
 ■ Clamps, Top sections, Connectors

NewXS 1626
 ■ Basic Set

Alufix 16 Classic components28
 ■ Compatible with NewXS 16

Alufix 16 Classic connection elements38
 ■ Compatible with NewXS 16

NewXS MiniVac42
 ■ Mini vacuum clamping system

NewXS 1044

Index45

Certification

Witte Barskamp is certified acc. to

- DIN EN ISO 9001 • DIN EN ISO 9100
- QSF-A (Aircraft supplier)



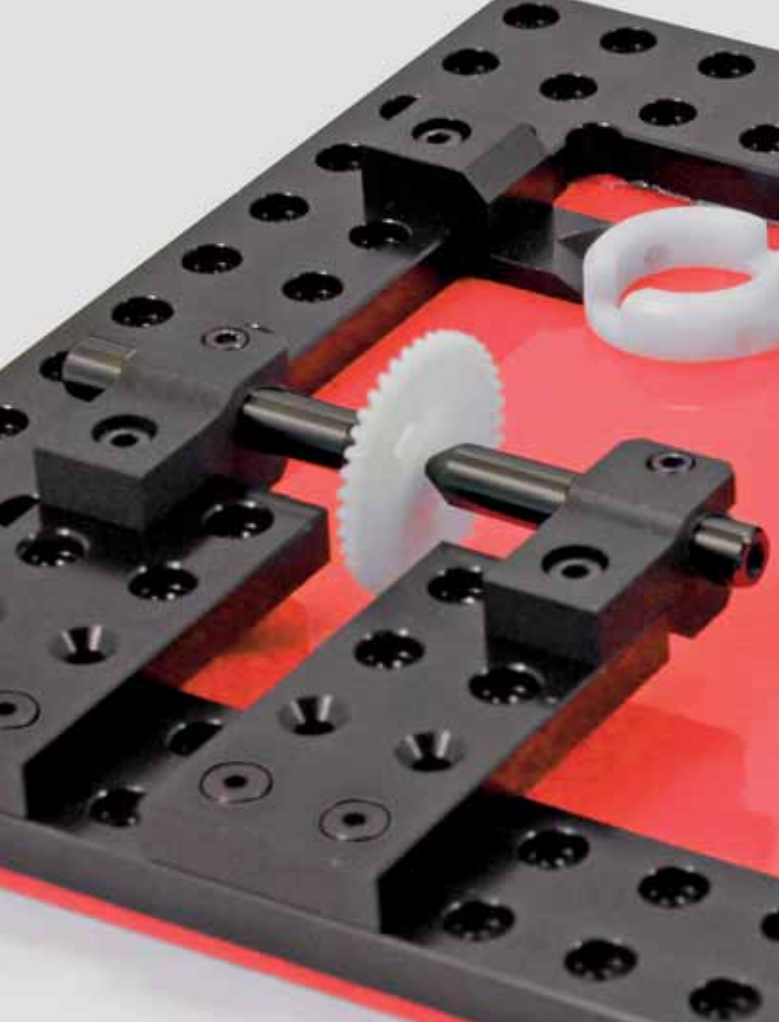
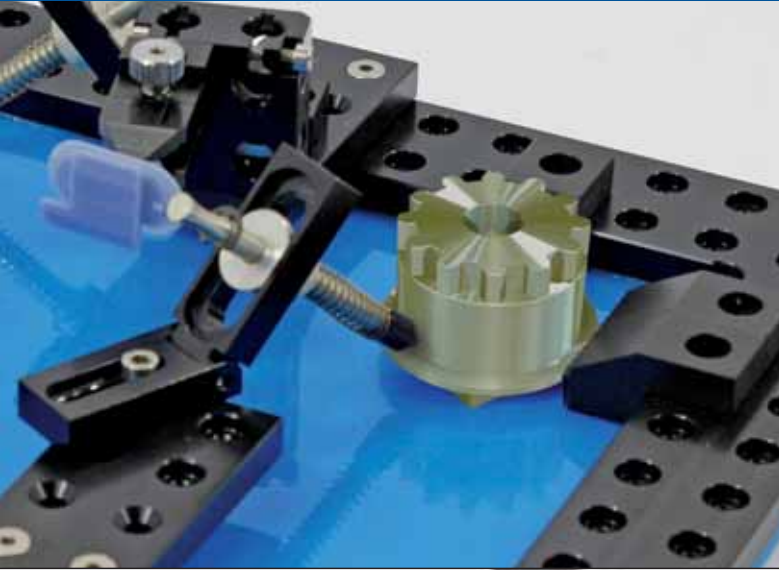
Information:

Weights mentioned in the catalogue are non-committal and approximate, and can deviate considerably i.e. through technical changes.

- We reserve the right to make technical changes.
- Where differences between photos and parts lists exist, the parts lists are decisive.
- Due to fluctuations of copper content in aluminum - alloy colour deviations may occur during anodizing.

All details on our products in this catalogue, especially illustrations, drawings, dimensions and statements on performance are to be regarded as approximate average values. We reserve the right to change design, technical data, dimensions and weights.

The indicated standards, similar technical regulations as well as technical details, descriptions and illustrations are valid at time of printing. Our general trading conditions are valid. Our quotations are decisive.



NewXS

Modular fixturing system for optical measuring and checking instruments

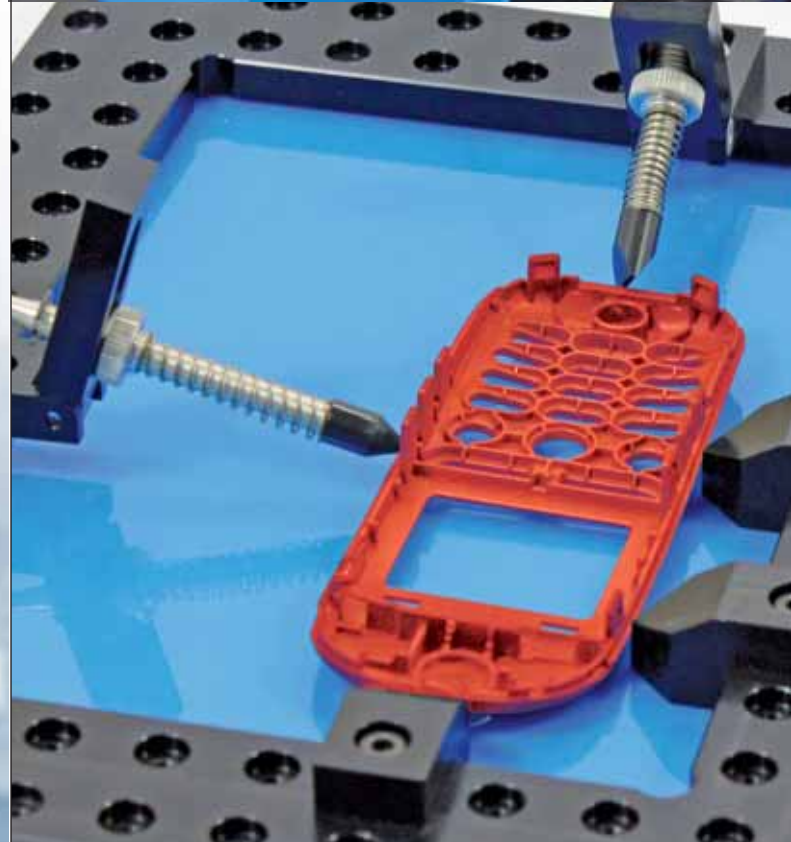
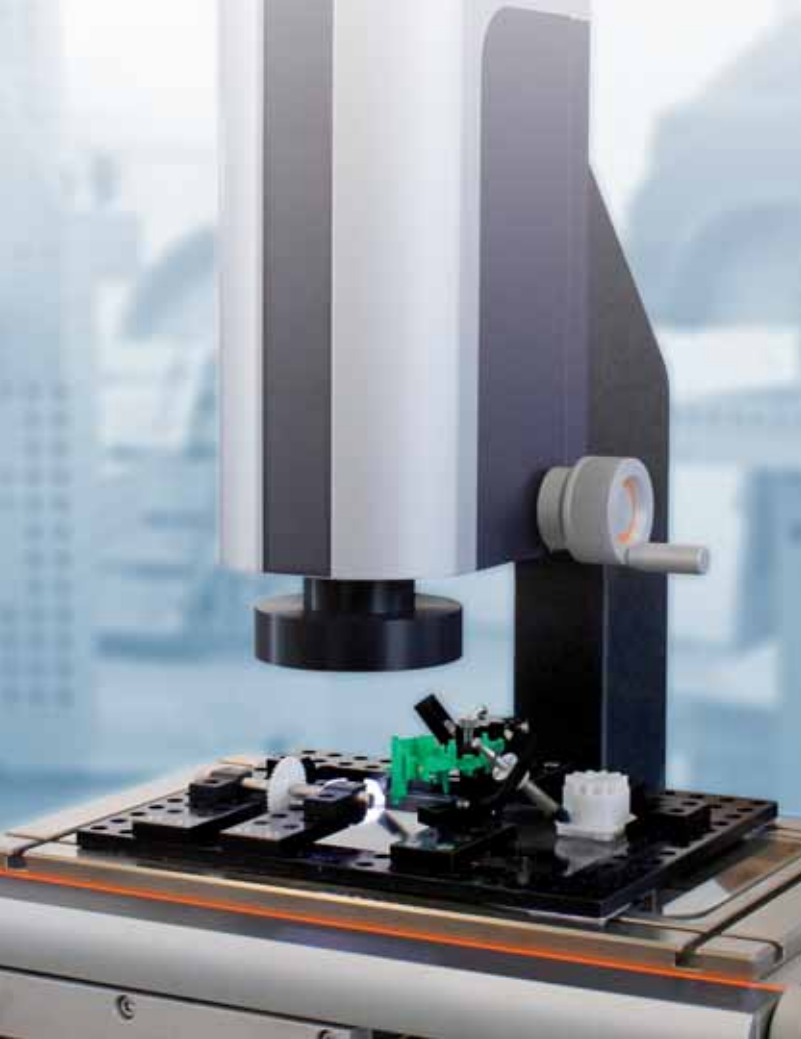
NewXS is the consequential continuation of the Witte modular philosophy established worldwide. All elements follow the well-known ALUFIX modular system principle and are compatible.

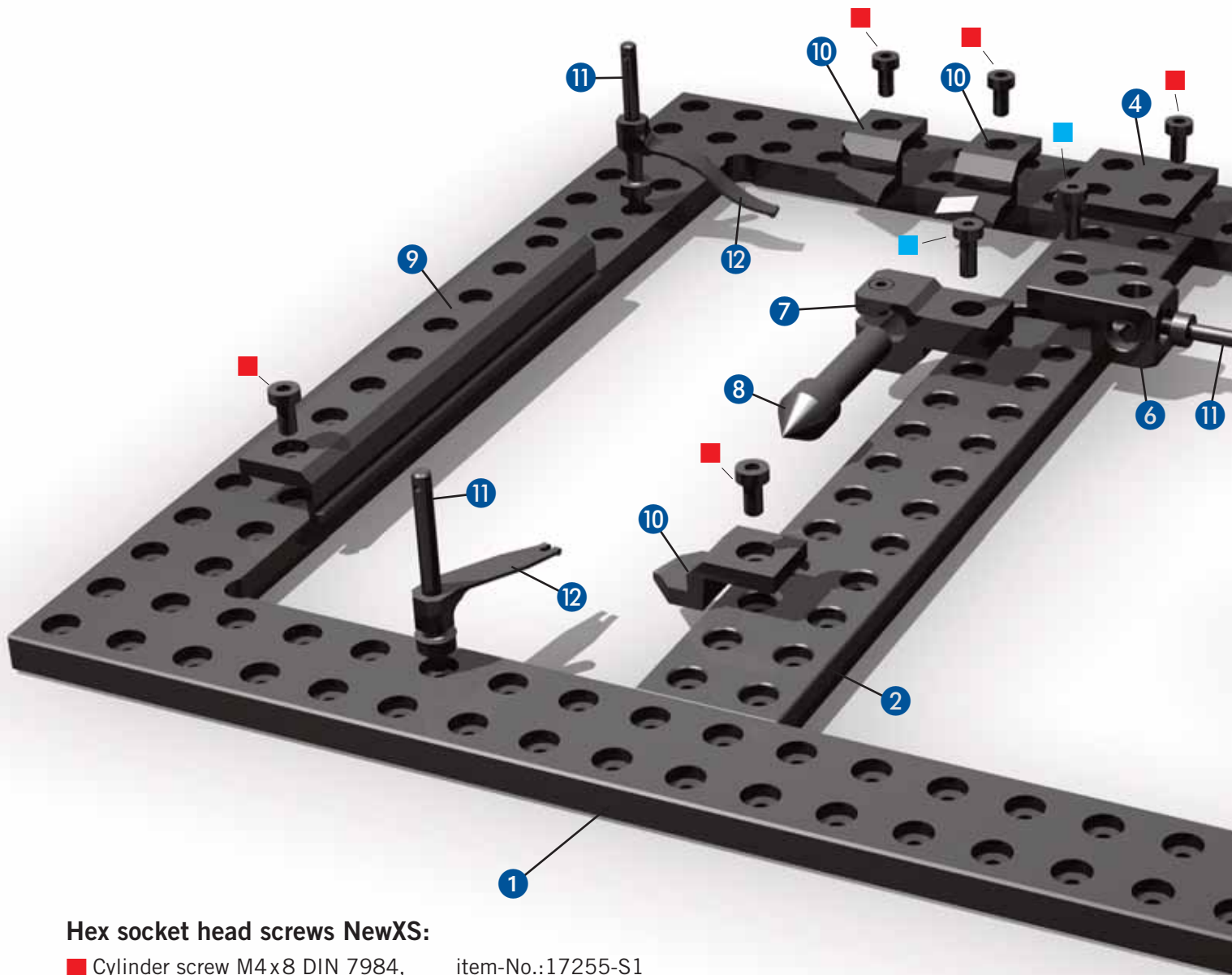
Suitable for profile projectors and digital image processing:

Two system sizes:
 XS 16 and XS 10 for small parts
 According to modular principle both upgradeable with a variety of Alufix 16 and including a new mini vacuum solution.

Material: High-tensile aluminium alloy, anodized (black or natural)

Fast, accurate set up and adaptable to new tasks.

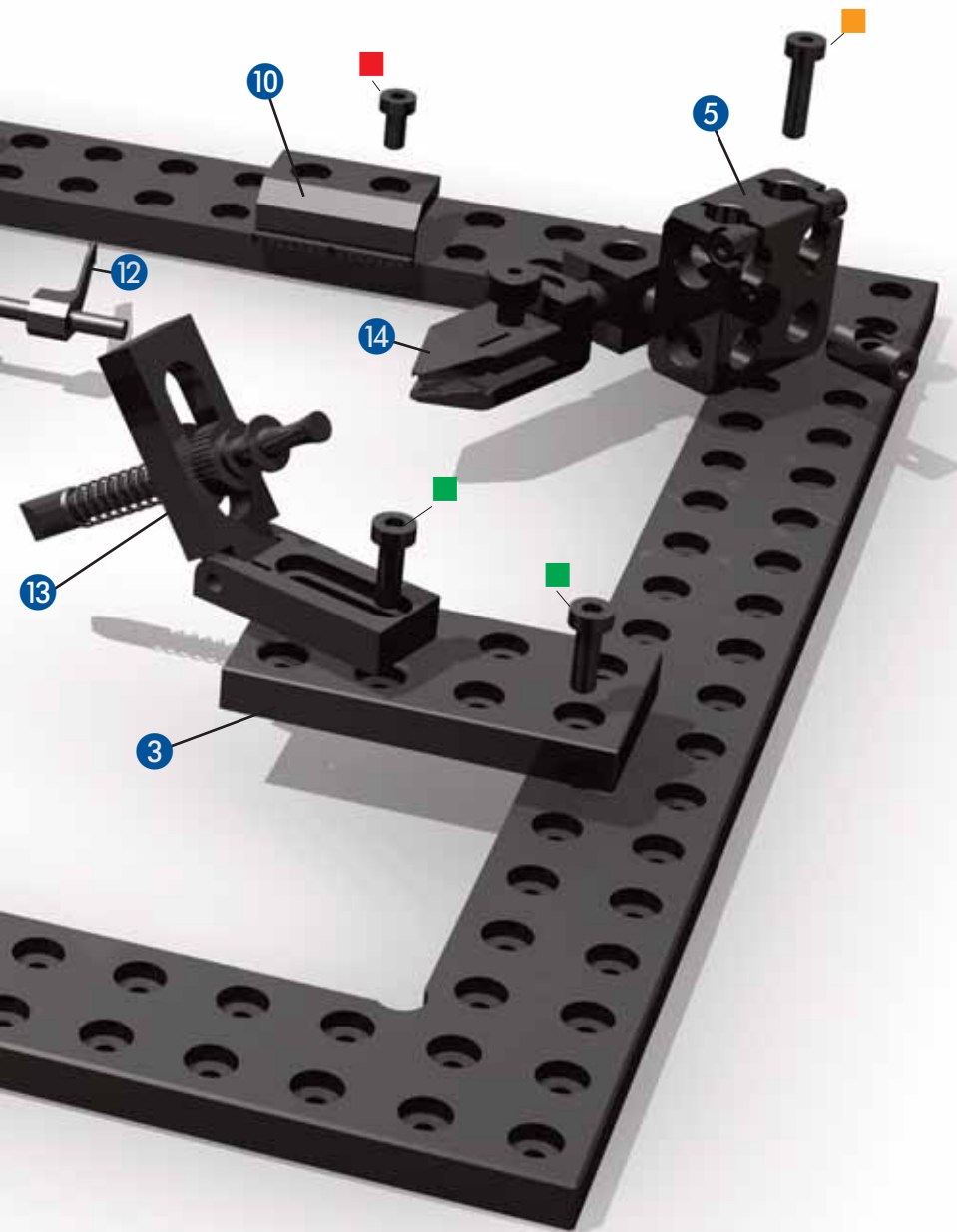




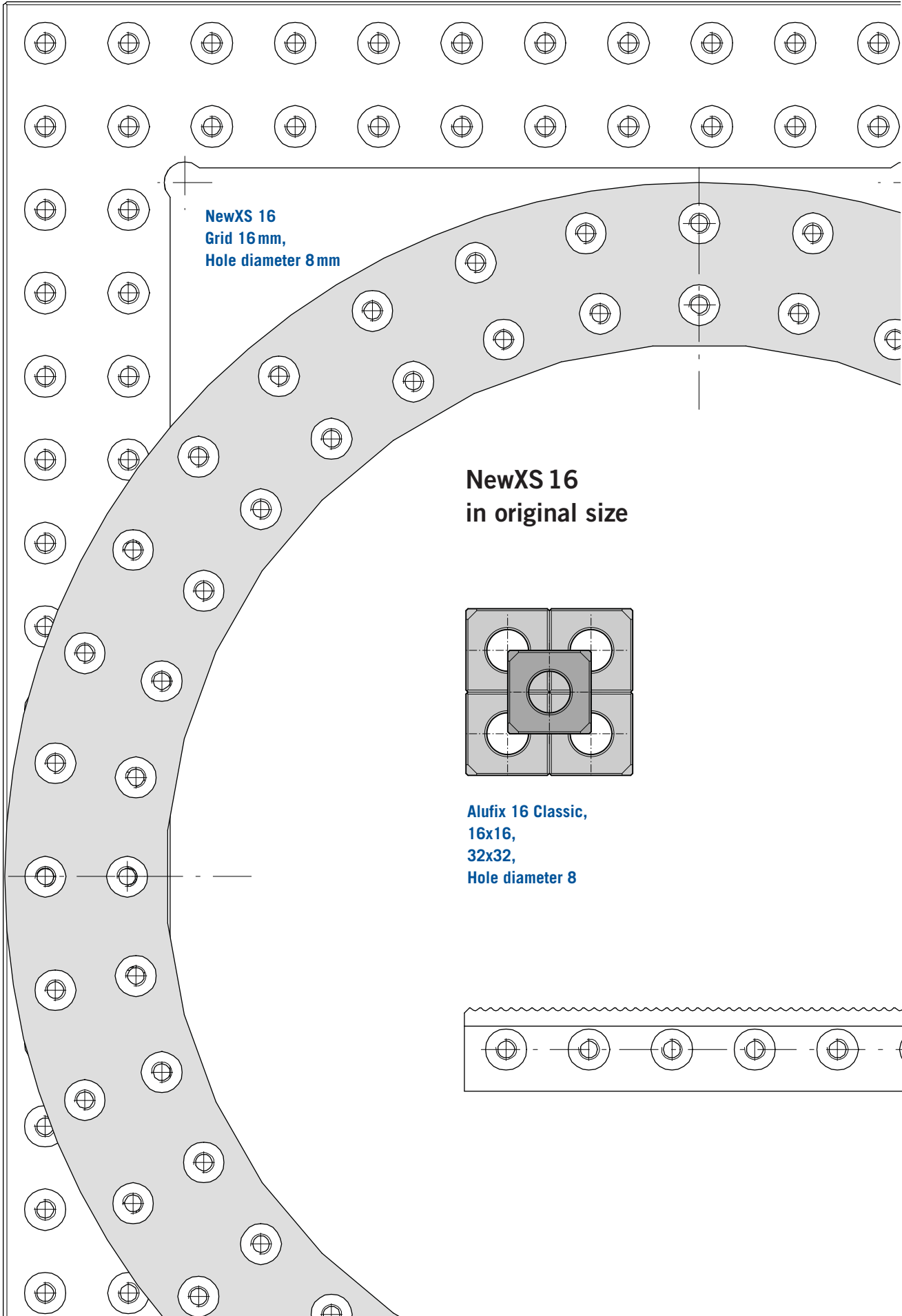
Hex socket head screws NewXS:

- Cylinder screw M4x8 DIN 7984, item-No.:17255-S1
- Cylinder screw M4x10 DIN 7984, item-No.:11546-S1
- Cylinder screw M4x12 DIN 7984, item-No.:16141-S1
- Cylinder screw M4x16 DIN 7984, item-No.:16359-S1

Components NewXS Spannsystem

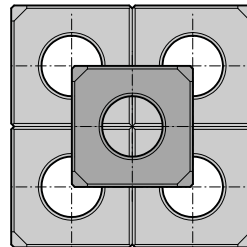


- ① Grid frame
- ② Bars
- ③ Adapter plate
- ④ Connecting lug
- ⑤ Clampholder
- ⑥ Basic bar
- ⑦ Tailstock
- ⑧ Center
- ⑨ Stop bar
- ⑩ Stop
- ⑪ Hold-down column
- ⑫ Hold-down spring
- ⑬ Push rod
- ⑭ Parallel clamp

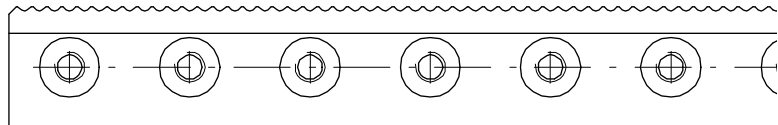


NewXS 16
Grid 16 mm,
Hole diameter 8 mm

NewXS 16
in original size



Alufix 16 Classic,
16x16,
32x32,
Hole diameter 8



Components

NewXS Fixturing system

NewXS is not only suitable for two dimensional reflected or transmitted light projectors but also for tactile measuring machines and three-dimensional measuring.

2D: Parts normally lie on glass plate of measuring unit, are positioned on the inside of a NewXS frame and clamped against frame or against glass.

3D: The frame serves as a basis for mounting complex contact and support surfaces so that parts can be measured from all sides.



Basic components of NewXS:

Closed or open grid frames in one piece, round, square or rectangular. User defined L-shaped, U-shaped or closed grid frames made of bars.

Special frames adapted to machine surface.

Grid bars for dividing frames into several measuring areas for clamping more than one part at a time, or for positioning adjusting or clamping elements. Adapter plates, stud bars, clamp holders, telescopic columns.

Contact and support components:

Serrated bars, V-pieces, fixed and rotating centers, ball points and tips.



Clamping components:

Hold-down springs, clamps, parallel clamps, horizontal toggle clamps, vacuum suckers, magnetic supports

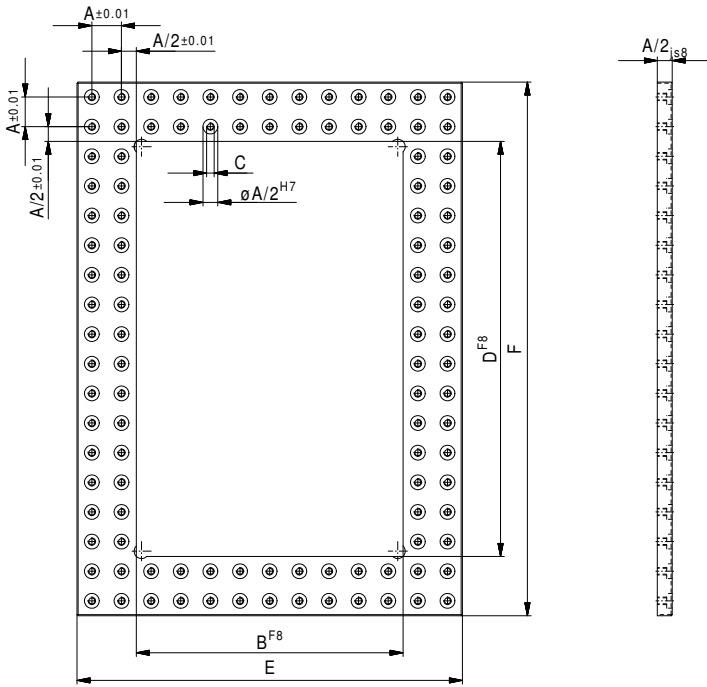


Alufix 16 supplements:

All Alufix 16 Classic components can be combined with NewXS 16 elements.



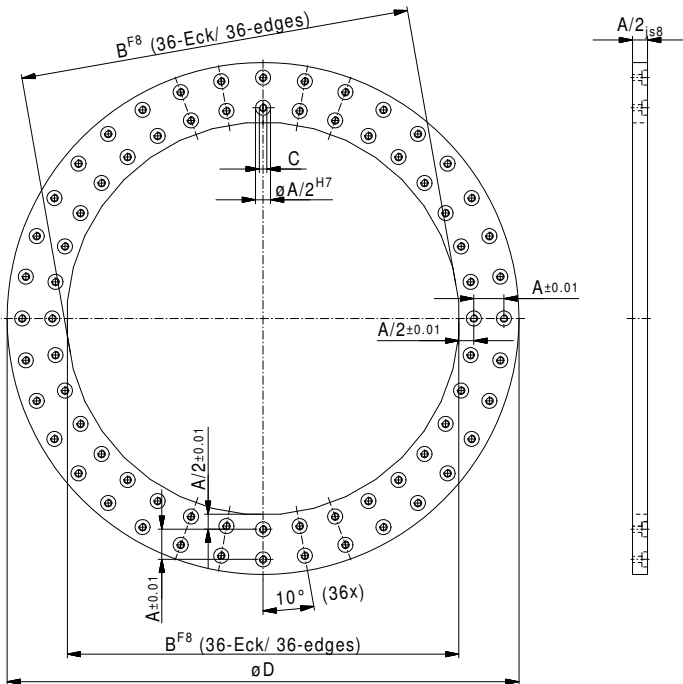
Grid frame NewXS 16



| Nr. | A | B | C | D | E | F | |
|----------|----|-----|----|-----|-----|-----|-----|
| 326736-1 | 16 | 128 | M4 | 192 | 192 | 256 | 481 |
| 324202-1 | 16 | 144 | M4 | 208 | 208 | 272 | 521 |
| 326737-1 | 16 | 224 | M4 | 272 | 288 | 336 | 702 |
| 326738-1 | 16 | 240 | M4 | 288 | 304 | 352 | 742 |



Grid ring NewXS 16



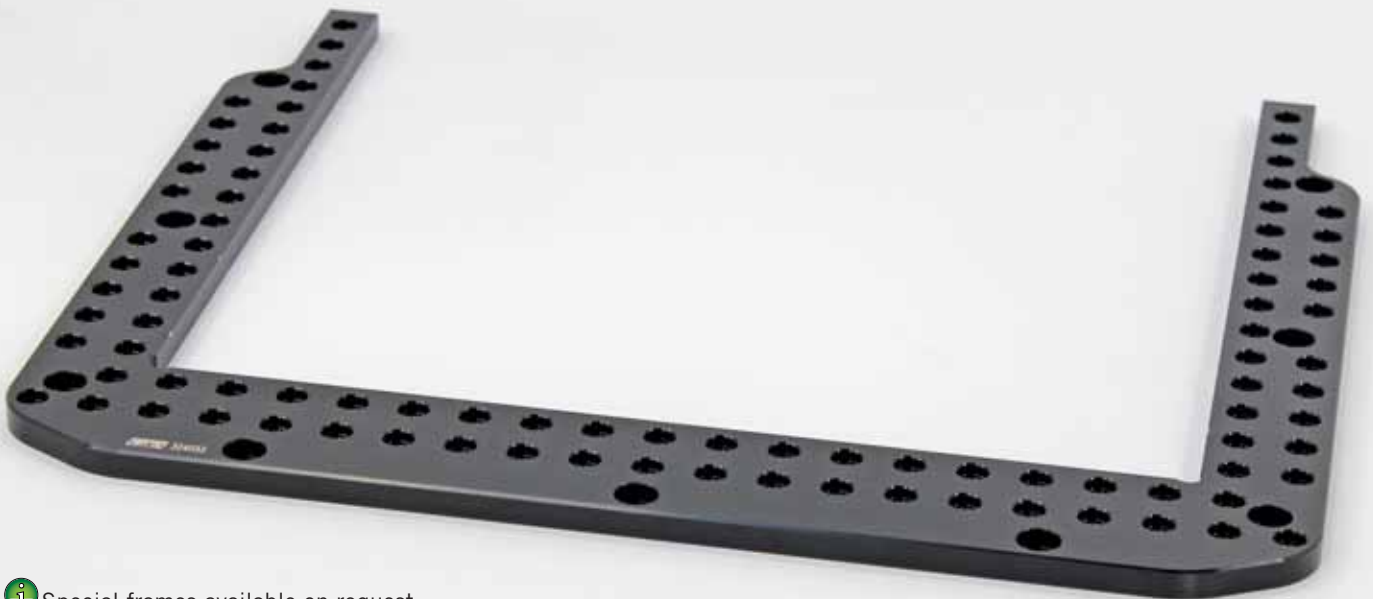
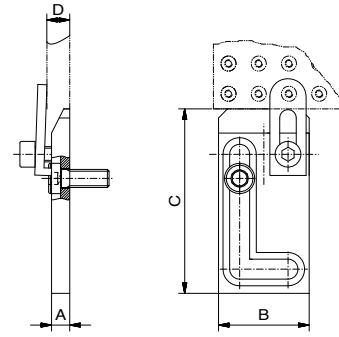
| Nr. | A | B | C | D | |
|----------|----|-----|-----|-----|-----|
| 326734-1 | 16 | 208 | M 4 | 272 | 484 |



Stop with clamp NewXS 16

For grid plates XS

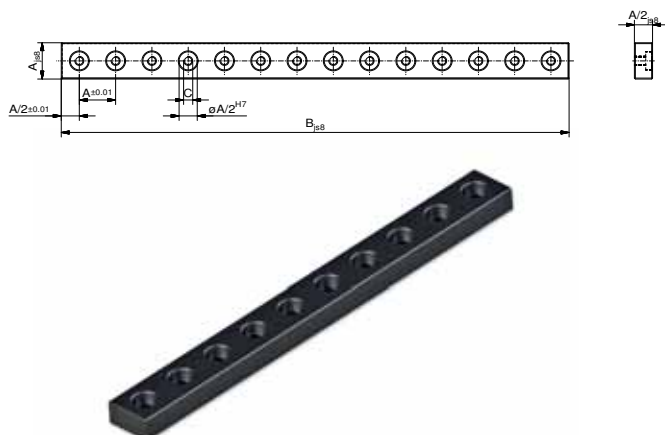
| Nr. | A | B | C | D | g |
|----------|---|----|-----|---|-----|
| 95470-1 | 6 | 30 | 61 | 8 | 43 |
| 281447-1 | 6 | 30 | 175 | 8 | 108 |



Special frames available on request




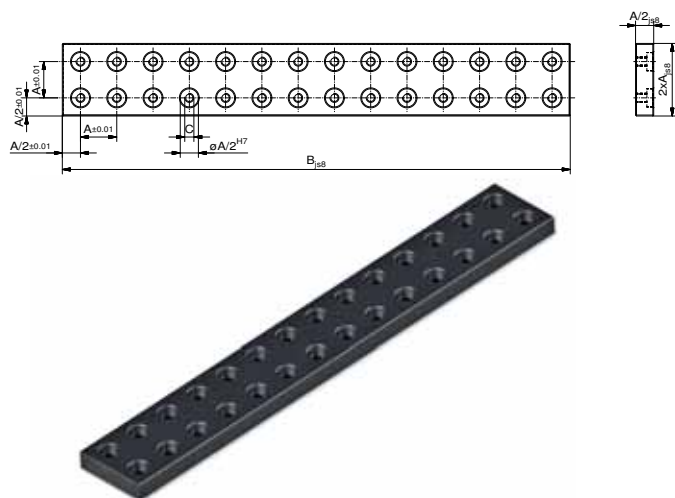
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Bar NewXS 16


One row

| Nr. | A | B | C |  |
|----------|----|-----|----|---|
| 327749-1 | 16 | 48 | M4 | 15 |
| 327750-1 | 16 | 64 | M4 | 20 |
| 327726-1 | 16 | 80 | M4 | 25 |
| 327727-1 | 16 | 96 | M4 | 30 |
| 327728-1 | 16 | 112 | M4 | 35 |
| 327729-1 | 16 | 128 | M4 | 40 |
| 327730-1 | 16 | 144 | M4 | 45 |
| 326725-1 | 16 | 160 | M4 | 50 |
| 327741-1 | 16 | 176 | M4 | 55 |
| 326726-1 | 16 | 192 | M4 | 60 |
| 326727-1 | 16 | 208 | M4 | 65 |
| 326728-1 | 16 | 224 | M4 | 70 |
| 326729-1 | 16 | 240 | M4 | 75 |
| 327785-1 | 16 | 256 | M4 | 80 |



Bar NewXS 16

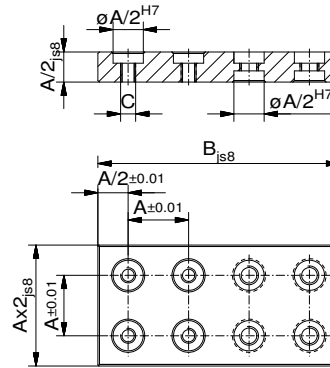
Two row

| Nr. | A | B | C |  |
|----------|----|-----|----|---|
| 327751-1 | 16 | 48 | M4 | 42 |
| 327752-1 | 16 | 64 | M4 | 56 |
| 327722-1 | 16 | 80 | M4 | 70 |
| 327723-1 | 16 | 96 | M4 | 84 |
| 327724-1 | 16 | 112 | M4 | 98 |
| 326858-1 | 16 | 128 | M4 | 112 |
| 327725-1 | 16 | 144 | M4 | 126 |
| 326719-1 | 16 | 160 | M4 | 140 |
| 327718-1 | 16 | 176 | M4 | 154 |
| 326720-1 | 16 | 192 | M4 | 168 |
| 326721-1 | 16 | 208 | M4 | 182 |
| 326722-1 | 16 | 224 | M4 | 196 |
| 326723-1 | 16 | 240 | M4 | 210 |
| 326724-1 | 16 | 256 | M4 | 224 |

Adapter plate NewXS 16

Two row

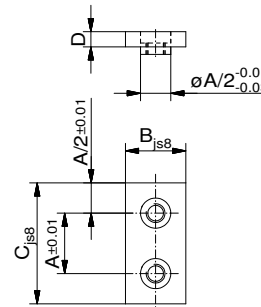
| Nr. | A | B | C | |
|----------|----|----|----|----|
| 324205-1 | 16 | 64 | M4 | 39 |



Connecting lug NewXS 16

One row

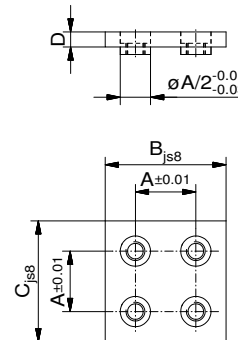
| Nr. | A | B | C | D | |
|----------|----|----|----|---|----|
| 326731-1 | 16 | 16 | 32 | 4 | 5 |
| 326732-1 | 16 | 16 | 64 | 4 | 10 |



Connecting lug NewXS 16

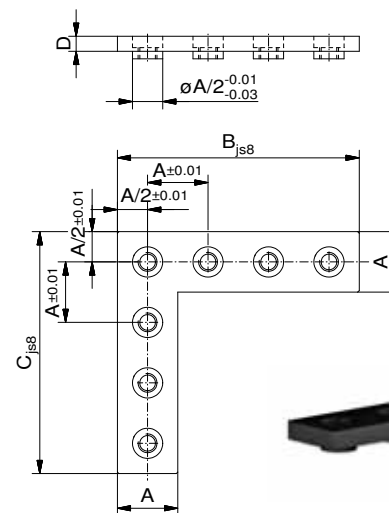
Two row

| Nr. | A | B | C | D | |
|----------|----|----|----|---|----|
| 324203-1 | 16 | 32 | 32 | 4 | 10 |

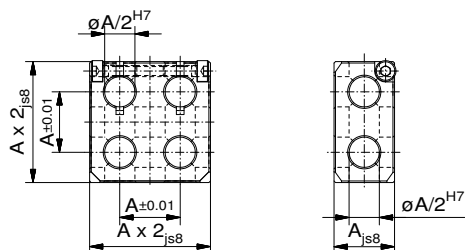


Angle connecting lug NewXS 16

| Nr. | A | B | C | D | |
|----------|----|----|----|---|----|
| 326796-1 | 16 | 48 | 48 | 4 | 13 |
| 326795-1 | 16 | 64 | 64 | 4 | 18 |



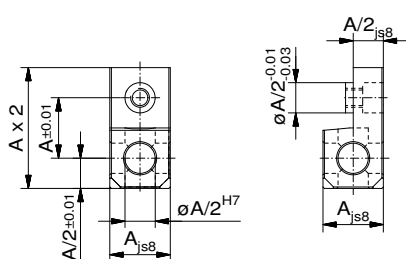
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Clampholder NewXS 16

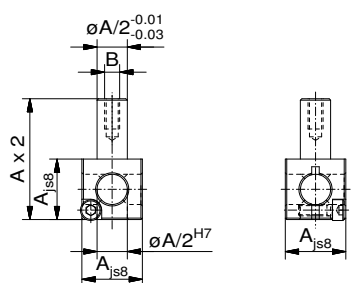
Two row

| Nr. | A | | | |
|----------|----|--|--|----|
| 285042-1 | 16 | | | 80 |



Basic bar NewXS 16

| Nr. | A | | | |
|----------|----|--|--|----|
| 324209-1 | 16 | | | 11 |



Clampholder NewXS 16

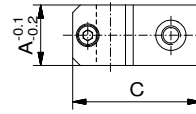
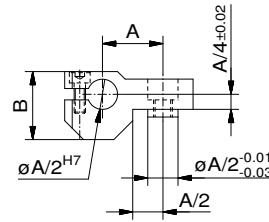
with stud

| Nr. | A | B | | |
|----------|----|----|--|---|
| 285043-1 | 16 | M4 | | 8 |



Tailstock NewXS 16

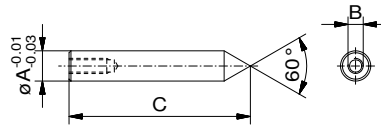
| Nr. | A | B | C | |
|----------|----|----|----|----|
| 285044-1 | 16 | 18 | 34 | 14 |



Center NewXS 16

fixed

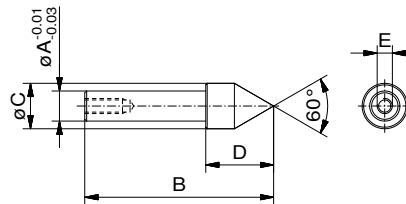
| Nr. | A | B | C | |
|----------|---|----|----|---|
| 326748-1 | 8 | M4 | 48 | 6 |



Center NewXS 16

rotating

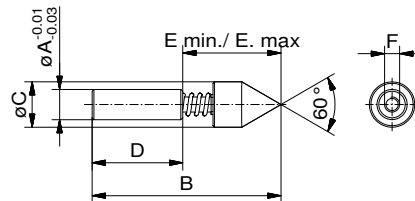
| Nr. | A | B | C | D | E | |
|----------|---|----|----|----|----|----|
| 284583-1 | 8 | 50 | 12 | 18 | M4 | 13 |



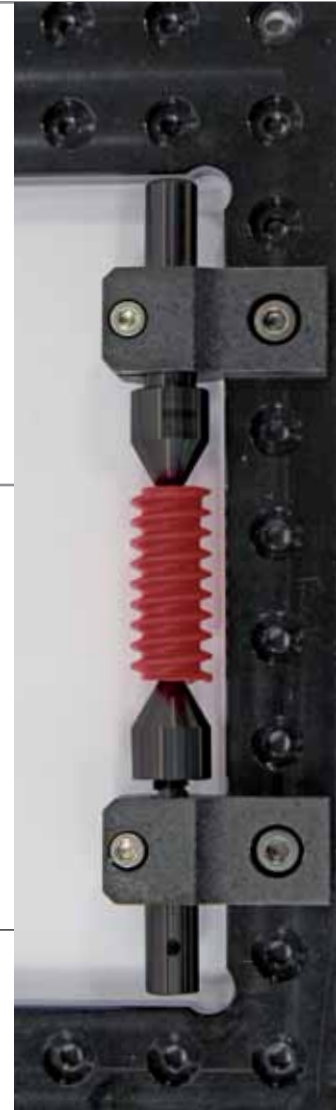
Center NewXS 16

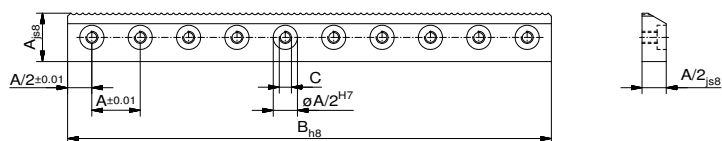
rotating, spring loaded

| Nr. | A | B | C | D | E min. | E max. | F | |
|----------|---|----|----|----|--------|--------|----|----|
| 284584-1 | 8 | 50 | 12 | 24 | 21 | 26 | M4 | 18 |



NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.

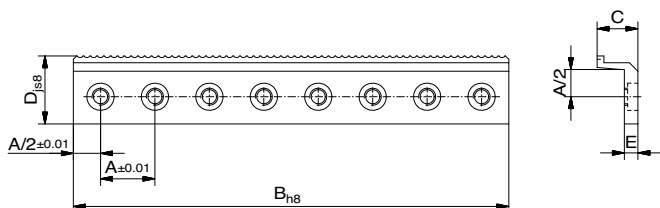




Serrated bar NewXS 16

One row

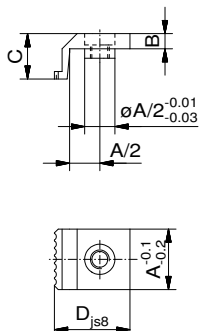
| Nr. | A | B | C | |
|----------|----|-----|-----|----|
| 326753-1 | 16 | 160 | M 4 | 45 |
| 326754-1 | 16 | 192 | M 4 | 54 |
| 326755-1 | 16 | 208 | M 4 | 59 |
| 326756-1 | 16 | 224 | M 4 | 63 |
| 326757-1 | 16 | 240 | M 4 | 68 |



Stop bar NewXS 16

One row, serrated

| Nr. | A | B | C | D | E | |
|----------|----|-----|----|----|---|----|
| 326790-1 | 16 | 128 | 12 | 20 | 4 | 26 |
| 326791-1 | 16 | 144 | 12 | 20 | 4 | 29 |
| 326792-1 | 16 | 160 | 12 | 20 | 4 | 32 |
| 326793-1 | 16 | 224 | 12 | 20 | 4 | 45 |
| 326794-1 | 16 | 240 | 12 | 20 | 4 | 49 |



Stop NewXS 16

serrated

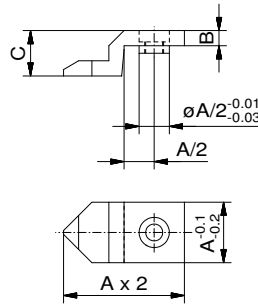
| Nr. | A | B | C | D | |
|----------|----|---|----|----|---|
| 324206-1 | 16 | 4 | 12 | 20 | 6 |



Stop NewXS 16

pointed

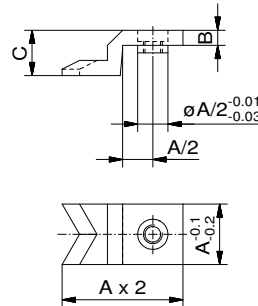
| Nr. | A | B | C | g |
|----------|----|---|----|---|
| 326741-1 | 16 | 4 | 12 | 9 |



Stop NewXS 16

Prismatic

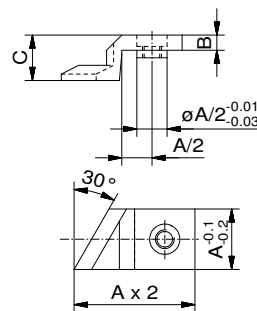
| Nr. | A | B | C | g |
|----------|----|---|----|---|
| 326751-1 | 16 | 4 | 12 | 9 |



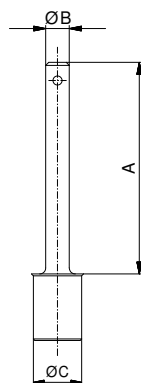
Stop NewXS 16

angled

| Nr. | A | B | C | Type | g |
|----------|----|---|------|-------|---|
| 324204-1 | 12 | 4 | 12,0 | left | 8 |
| 324318-1 | 12 | 4 | 12,0 | right | 8 |



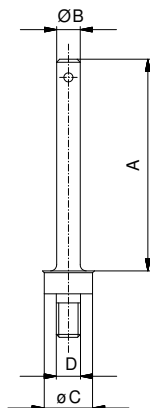
All NewXS stops have a pull-off thread M5



Hold-down column

self-locking

| Nr. | A | B | C | D | g |
|---------|----|-----|---|----|---|
| 20338-1 | 35 | 3,9 | 8 | 46 | 3 |
| 22259-1 | 55 | 5,9 | 8 | 66 | 5 |

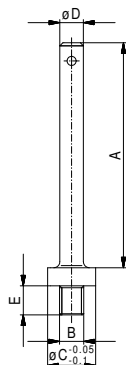


Hold-down column

with thread

| Nr. | A | B | C | D | E | g |
|---------|----|-----|---|----|----|---|
| 20339-1 | 35 | 3,9 | 8 | M4 | 46 | 3 |
| 22262-1 | 55 | 5,9 | 8 | M4 | 66 | 5 |

for connection using crosspiece (p. 38)



Hold-down column

with shortened thread

| Nr. | A | B | C | D | E | g |
|----------|------|----|---|-----|-----|---|
| 327460-1 | 37,2 | M4 | 8 | 3,9 | 4,8 | 3 |

for connection using crosspiece (p. 38)

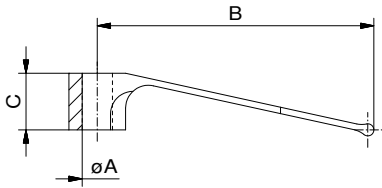


Hold down column with thread mounted using crosspiece nut

Hold-down spring

self-locking on hold-down column

| Nr. | A | B | C | |
|---------|---|----|-----|---|
| 20244-1 | 4 | 36 | 7,5 | 1 |



Hold-down spring

in black polymer,
self-locking on hold-down column

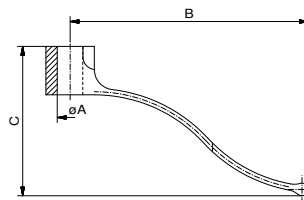
| Nr. | A | B | C | |
|--------|---|----|-----|---|
| 326971 | 4 | 36 | 7,5 | 1 |



Hold-down spring

for low clamping

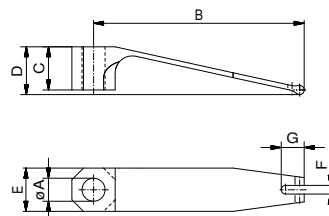
| Nr. | A | B | C | |
|---------|---|------|------|---|
| 34634-1 | 4 | 36,5 | 23,5 | 2 |
| 34764-1 | 6 | 36,5 | 23,5 | 1 |



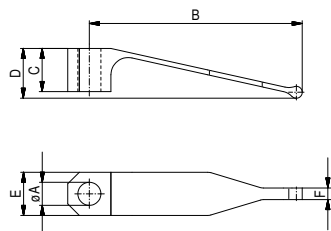
Hold-down spring

forked

| Nr. | A | B | C | D | E | F | G | |
|----------|-----------------|------|-----|-----|-----|-----|---|---|
| 324211-1 | $\varnothing 4$ | 36,6 | 7,5 | 8,3 | 7,5 | 1,5 | 4 | 1 |



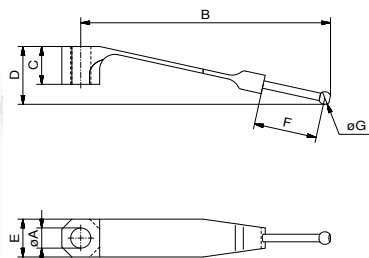
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Hold-down spring

tapered

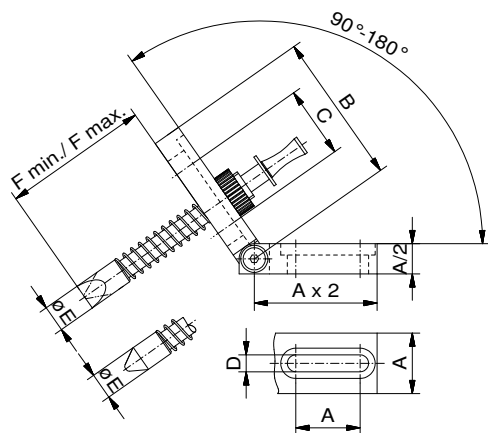
| Nr. | A | B | C | D | E | F | G | g |
|----------|----|----|-----|-----|-----|---|---|---|
| 326970-1 | ø4 | 37 | 7,5 | 8,7 | 7,5 | 2 | 1 | |



Hold-down spring

with ball point

| Nr. | A | B | C | D | E | F | G | g |
|----------|----|------|-----|------|-----|------|------|---|
| 284708-1 | ø4 | 49,5 | 7,5 | 11,5 | 7,5 | 12,5 | ø2,5 | 2 |



Push rod NewXS 16

spring loaded

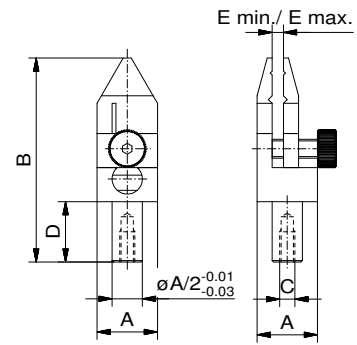
| Nr. | A | B | C | D | E | F min. | F max. | g |
|----------|----|----|----|-----|----|--------|--------|----|
| 284477-1 | 16 | 40 | 19 | 4,5 | ø7 | 25 | 50 | 23 |



Parallel clamp NewXS 16

with exchangeable jaws

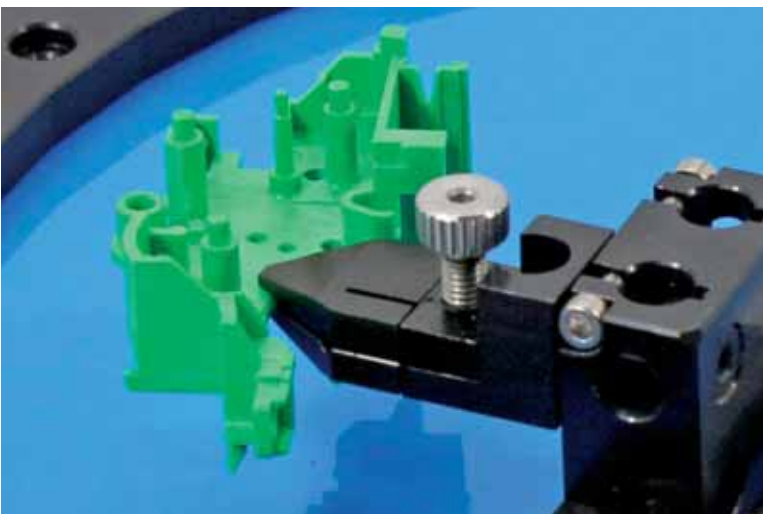
| Nr. | A | B | C | D | E min. | E max. | g |
|----------|----|----|----|----|--------|--------|----|
| 284476-1 | 16 | 54 | M4 | 16 | 0 | 8 | 20 |



Exchangeable jaws also available in other versions on request



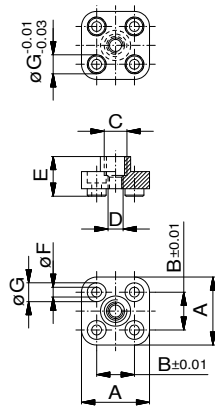
A push rod enables positioning from an angle



Parallel clamp in combination with clamp holder (p 12)



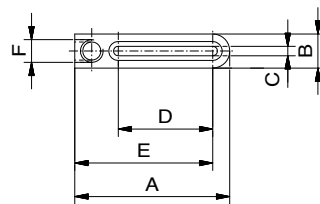
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Foot XS 16

Adapter with thread

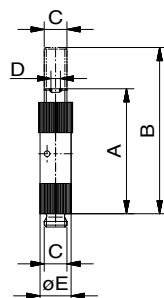
| Nr. | A | B | C | D | E | F | G | |
|----------|----|----|----|----|----|-----|---|---|
| 335372-1 | 24 | 16 | M6 | M4 | 11 | 4,6 | 7 | 3 |



Adjustable fish-tongue

for positioning independent of grid

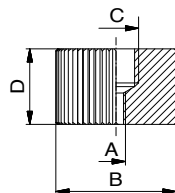
| Nr. | A | B | C | D | E | F | |
|---------|----|---|-----|----|------|----|----|
| 32432-1 | 41 | 9 | 2,5 | 25 | 36,5 | M6 | 10 |



Telescopic unit

with thread

| Nr. | A | B | C | D | E | |
|---------|----|----|----|------|---|----|
| 85839-1 | 33 | 44 | M6 | M2,5 | 8 | 5 |
| 85444-1 | 63 | 99 | M6 | M2,5 | 8 | 10 |
| 94806-1 | 33 | 48 | M6 | M2,5 | 8 | 5 |



Reducer female/female

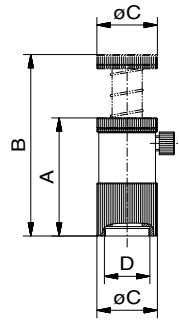
M6/M2,5

| Nr. | A | B | C | D | |
|----------|------|----|----|----|---|
| 327928-1 | M2,5 | 12 | M6 | 10 | 3 |

Supporter

spring loaded

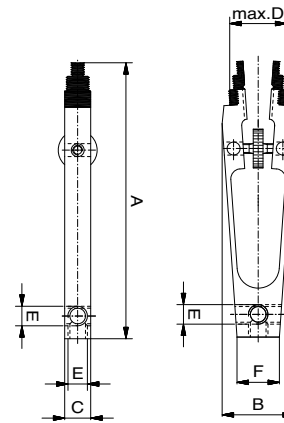
| Nr. | A | B | C | D | |
|---------|------|----|----|---------|----|
| 81585-1 | 32,5 | 48 | 16 | M12X0,5 | 20 |



Pincers

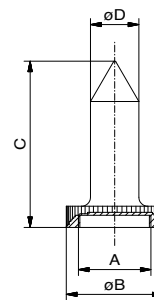
small and large

| Nr. | A | B | C | D | E | F | |
|---------|------|------|---|------|----|----|----|
| 85423-1 | 46,8 | 16,9 | 8 | 9,3 | M6 | 7 | 5 |
| 85443-1 | 85 | 22,2 | 8 | 17,5 | M6 | 13 | 10 |



Center

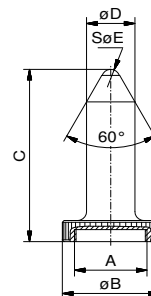
| Nr. | A | B | C | D | |
|---------|-----------|----|-------|----|----|
| 23638-1 | M12 x 0,5 | 16 | 27,5 | 8 | 10 |
| 54031-1 | M12 x 0,5 | 16 | 13,75 | 22 | 10 |



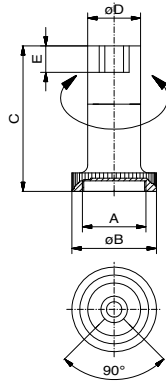
Center

with ball

| Nr. | A | B | C | D | E | |
|---------|-----------|----|------|----|----|---|
| 85676-1 | M12 x 0,5 | 16 | 28,5 | ø8 | ø3 | 4 |



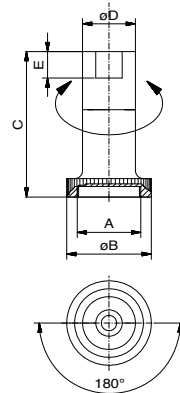
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Stop and support

90°

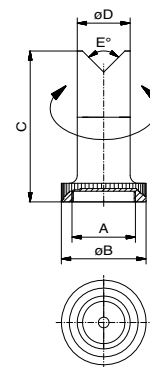
| Nr. | A | B | C | D | E | g |
|---------|---------|----|------|----|---|----|
| 93157-1 | M12x0,5 | 16 | 27,5 | 10 | 5 | 10 |



Stop and support

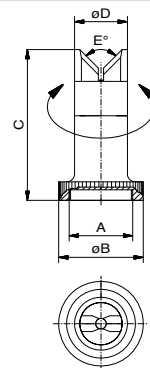
180°

| Nr. | A | B | C | D | E | g |
|---------|---------|----|------|----|---|----|
| 93158-1 | M12x0,5 | 16 | 27,5 | 10 | 5 | 10 |



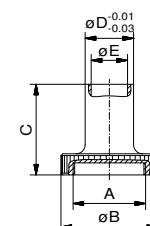
V-piece

| Nr. | A | B | C | D | E | g |
|---------|---------|----|------|----|----|----|
| 93159-1 | M12x0,5 | 16 | 27,5 | 10 | 90 | 10 |



Knife-V

| Nr. | A | B | C | D | E | g |
|---------|---------|----|------|----|----|----|
| 93160-1 | M12x0,5 | 16 | 27,5 | 10 | 90 | 10 |



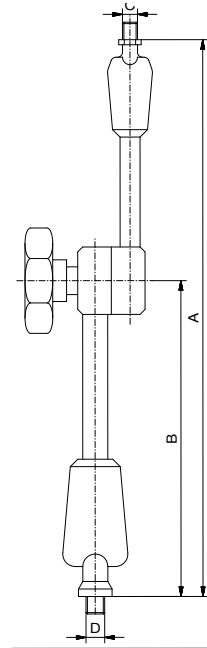
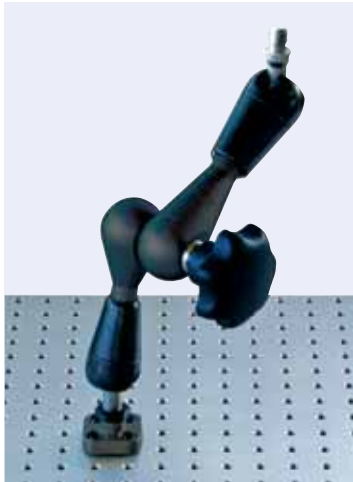
Magnetic Holder

| Nr. | A | B | C | D | E | g |
|---------|---------|-----------|------|-----------|----------|-----|
| 95177-1 | M12x0,5 | $\phi 16$ | 15 | $\phi 10$ | $\phi 6$ | 60 |
| 95176-1 | M12x0,5 | $\phi 16$ | 22,5 | $\phi 10$ | $\phi 6$ | 100 |

Swivel arm

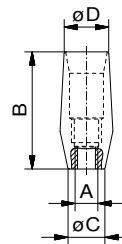
with joint

| Nr. | A | B | C | D | max. load | |
|-------|-----|----|----|----|-----------|-----|
| 85411 | 130 | 70 | M6 | M6 | 30 N | 135 |



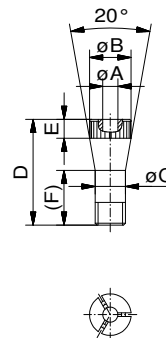
Collet chuck XS 16

| Nr. | A | B | C | D | |
|---------|----|----|-----|------|----|
| 32440-1 | M6 | 31 | 9,8 | 11,8 | 10 |

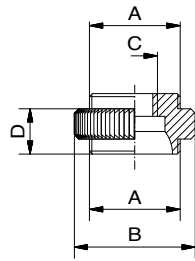


Collet XS 16

| Nr. | A | B | C | D | E | F | |
|---------|-----|----|---|----|---|------|---|
| 32453-1 | 1,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32463-1 | 1,5 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32464-1 | 2,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32465-1 | 2,5 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32466-1 | 3,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32467-1 | 3,5 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32468-1 | 4,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32469-1 | 4,5 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32470-1 | 5,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32471-1 | 5,5 | 11 | 8 | 28 | 5 | 14,5 | 3 |
| 32472-1 | 6,0 | 11 | 8 | 28 | 5 | 14,5 | 3 |

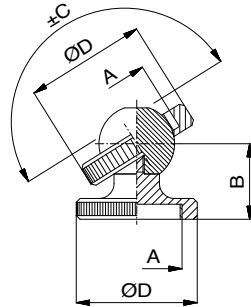


NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



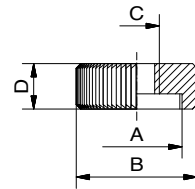
Adapter for Ball joint

| Nr. | A | B | C | D | |
|---------|---------|----|----|---|---|
| 32524-1 | M12x0,5 | 16 | M6 | 6 | 2 |



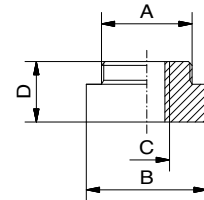
Ball joint

| Nr. | A | B | C | D | |
|---------|---------|----|-----|----|---|
| 81588-1 | M12x0,5 | 10 | 55° | 16 | 4 |



Reducer

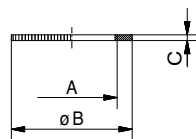
| Nr. | A | B | C | D | |
|---------|---------|----|----|---|---|
| 32525-1 | M12x0,5 | 16 | M6 | 6 | 2 |



Reducer

with collar, also for swivel arm

| Nr. | A | B | C | D | |
|---------|---------|----|----|---|---|
| 32526-1 | M12x0,5 | 16 | M6 | 8 | 3 |



Clamping ring

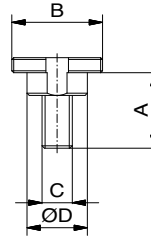
for keyless chuck

| Nr. | A | B | C | |
|---------|---------|----|-----|---|
| 53928-1 | M12x0,5 | 16 | 1,5 | 2 |

Fixing disc

with stud

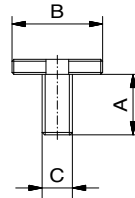
| Nr. | A | B | C | D | |
|---------|----|---------|----|---|---|
| 81587-1 | 10 | M12x0,5 | M4 | 8 | 2 |



Fixing disc

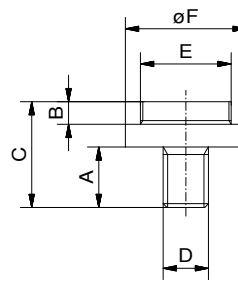
without stud

| Nr. | A | B | C | |
|---------|---|---------|----|---|
| 81589-1 | 8 | M12x0,5 | M4 | 2 |



Adapter disc

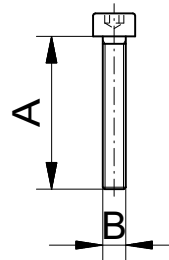
| Nr. | A | B | C | D | E | F | |
|---------|---|---|----|----|---------|----|---|
| 55875-1 | 8 | 3 | 14 | M6 | M12x0,5 | 16 | 3 |



Hex socket head screw

DIN 7984

| Nr. | A | B | DIN | WAF | |
|----------|----|----|------|-----|-----|
| 17255-S1 | 8 | M4 | 7984 | 2,5 | 1 |
| 11546-S1 | 10 | M4 | 7984 | 2,5 | 1,5 |
| 16141-S1 | 12 | M4 | 7984 | 2,5 | 1,5 |
| 16359-S1 | 16 | M4 | 7984 | 2,5 | 1,5 |

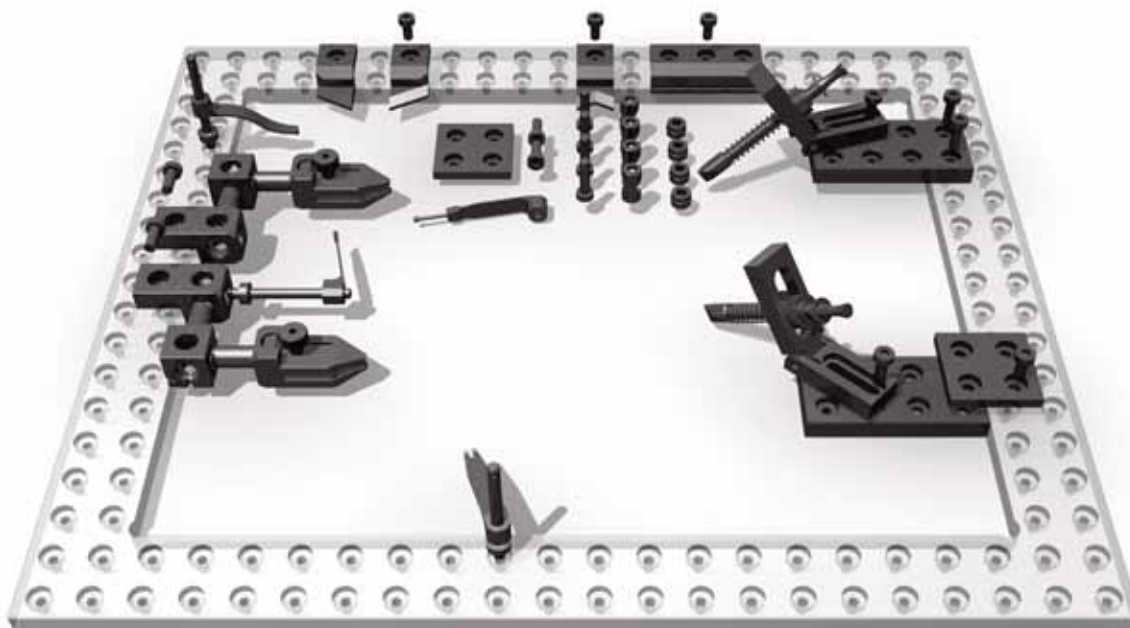


Tool

| Nr. | WAF | |
|-------|-----|-----|
| 17374 | 2,5 | 240 |




NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



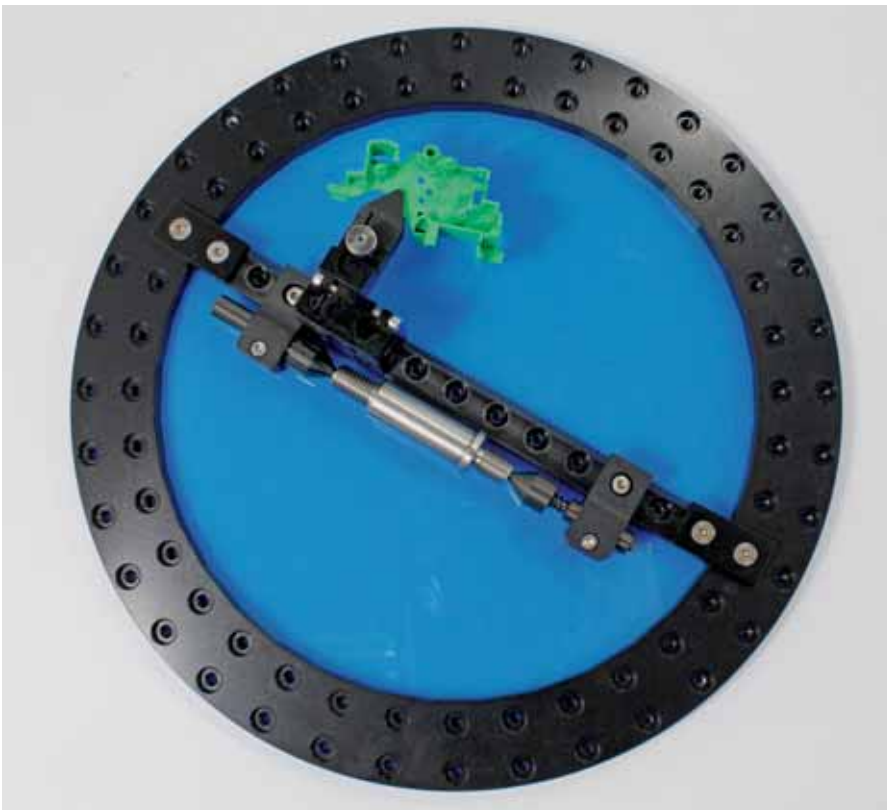
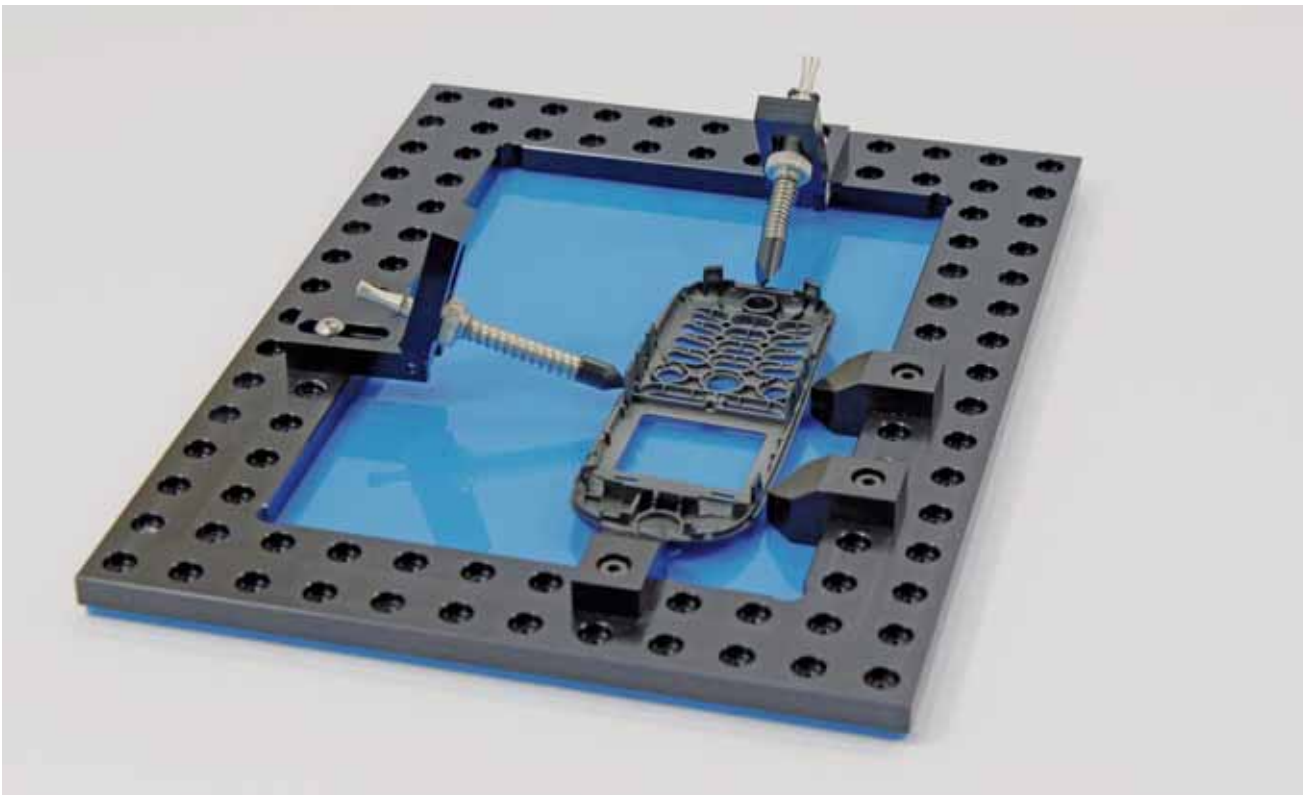
#284421-1 Basic Kit Set up components

NewXS 16, (42-pcs), 2,7 kg

 The grid frame is not included in the set. Frames and bars suitable for your specific application are shown from page 8

| Nr. | pcs | Name |
|----------|-----|------------------------------------|
| 324205-1 | 2 | Adapter plate B=32mm L=64mm |
| 324203-1 | 2 | Connecting lug B=32mm |
| 324204-1 | 1 | Stop angled left |
| 324318-1 | 1 | Stop angled right |
| 324209-1 | 2 | Basic bar XS 16 |
| 284476-1 | 2 | Parallel clamp XS 16 |
| 284477-1 | 2 | Push rod |
| 324208-1 | 2 | Clamp holder B=16mm L=32mm |
| 324206-1 | 3 | Stop serrated B=16mm |
| 327460-1 | 3 | Hold-down column with thread |
| 34634-1 | 1 | Hold-down spring for low clamping |
| 20244-1 | 2 | Hold-down spring |
| 284708-1 | 1 | Hold-down spring with ball end |
| 324211-1 | 1 | Hold-down spring with forked end |
| 324216-1 | 4 | Positioning sleeve D=8mm |
| 17255-S1 | 4 | Cylinder head screw M4X8 DIN 7984 |
| 11546-S1 | 4 | Cylinder head screw M4x10 DIN 7984 |
| 16141-S1 | 4 | Cylinder head screw M4X12 DIN 7984 |
| 16359-S1 | 4 | Cylinder head screw M4x16 DIN 912 |
| 52891-1 | 4 | Crosspiece Ø4,3/16 AF16 |
| 12417 | 1 | Storage case |





Various applications for filigree parts



i NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.

Components

ALUFIX 16 CLASSIC

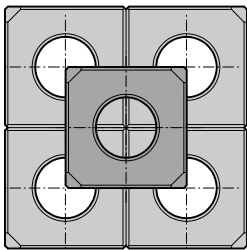
compatible with NewXS 16

Alufix Classic is the worldwide renowned and proven modular clamping and fixturing system for almost all applications in dimensional measuring technology.

Due to the high accuracy and quantity of intelligent elements Alufix sets are also in use as assembly and positioning systems. Right across all business areas ranging from automotive industry through aerospace to biomedical sciences people trust and use Witte Alufix Classic. If you have different materials, your parts vary in size, mass or stability, or you are measuring with tactile or optical equipment, Alufix Classic is the answer!

Due to the variety of components and of course the long experience of Witte Alufix Classic offers a solution for almost every task. Alufix Classic is not only an investment for current requirements but especially for the future, as all elements, according to the real idea of a modular system, are reusable and compatible with other Witte systems and elements.

Profiles in original size



AF 16 full,
16x16,
32x32,
Hole diameter 8

| | |
|-------------------|-------------------------------------|
| Material: | EN AW 7075 (high tensile aluminium) |
| Tensile strength: | Min. 480 N/mm ² |
| Hardness: | Min. 130 HB |
| Yield strength: | Min. 390 N/mm ² |
| E Module: | 72.000 N/m ² |



Base plates

serve as a base for building small to medium size fixtures. They can be connected on all 6 sides using quick or screw connection technology and are extremely flexible for all kinds of applications.



Bars

are suitable for building small to medium size fixtures as a link between base and workpiece contact point. They can be connected on all 6 sides using quick or screw connection technology and are extremely flexible for all kinds of applications.

Struts

serve to increase rigidity in frame type fixtures and for supporting columns. Depending on requirements they are connected at the ends to bars, grid or base plates using quick or screw connectors. The specially designed strut ends allow them to be mounted in two different angles by rotating 180°.



Clamping elements

and clamps also in combination with workpiece contact points



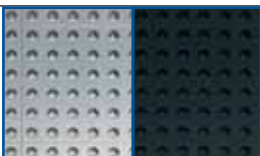
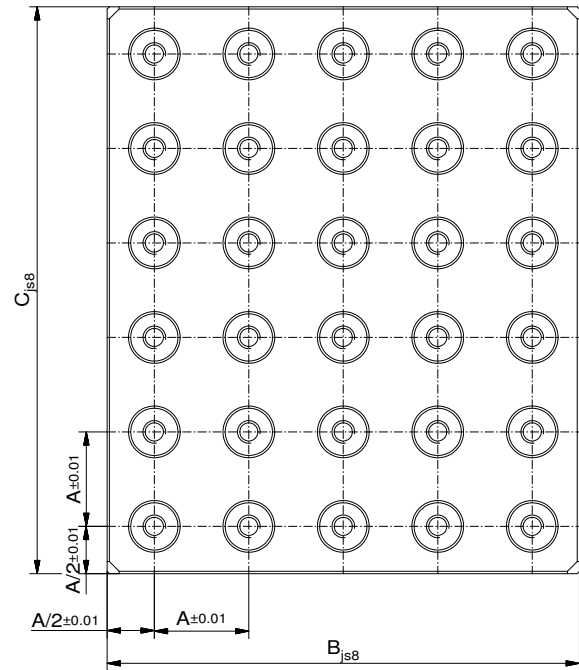
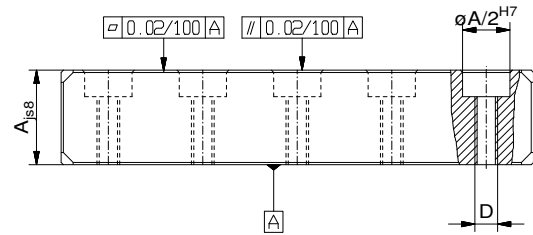
Adjustment elements

enable contact points to be accurately aligned with a workpiece independent of the system grid.

Grid Base Plate ALUFIX 16

Grid (A) 16, hole diameter 8mm

| Nr. | A | B | C | D | |
|---------|----|-----|-----|----|-------|
| 20640-1 | 16 | 128 | 256 | M4 | 1.416 |
| 20641-1 | 16 | 160 | 320 | M4 | 2.221 |
| 20642-1 | 16 | 192 | 256 | M4 | 2.123 |
| 20643-1 | 16 | 192 | 384 | M4 | 3.185 |
| 20644-1 | 16 | 256 | 320 | M4 | 3.539 |
| 20645-1 | 16 | 256 | 384 | M4 | 4.247 |
| 20646-1 | 16 | 320 | 320 | M4 | 4.424 |
| 20647-1 | 16 | 320 | 640 | M4 | 8.847 |
| 20648-1 | 16 | 384 | 384 | M4 | 6.370 |
| 20649-1 | 16 | 384 | 512 | M4 | 8.493 |

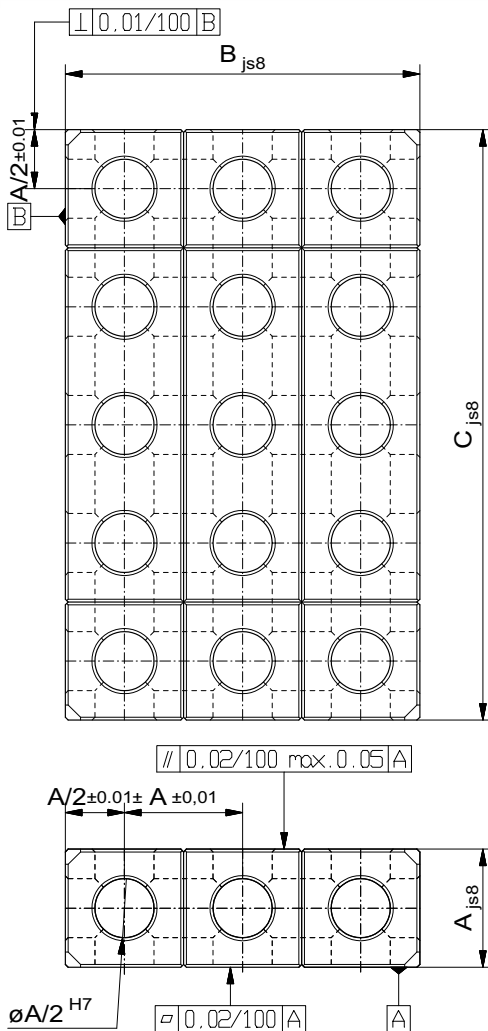


NewXS Base plates can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Base plate ALUFIX 16

Grid (A) 16, hole diameter 8mm

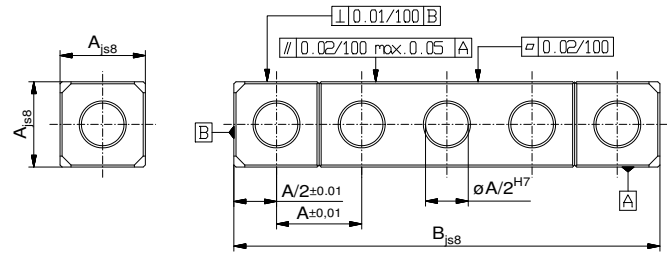


| Nr. | A | B | C | g |
|---------|----|-----|-----|-------|
| 22093-1 | 16 | 32 | 32 | 27 |
| 22094-1 | 16 | 32 | 48 | 40 |
| 22095-1 | 16 | 32 | 64 | 53 |
| 22096-1 | 16 | 32 | 80 | 100 |
| 22932-1 | 16 | 32 | 96 | 80 |
| 22931-1 | 16 | 32 | 112 | 93 |
| 20652-1 | 16 | 32 | 160 | 131 |
| 20653-1 | 16 | 32 | 320 | 300 |
| 22930-1 | 16 | 64 | 96 | 160 |
| 21566-1 | 16 | 64 | 112 | 187 |
| 22929-1 | 16 | 64 | 128 | 214 |
| 21567-1 | 16 | 80 | 112 | 234 |
| 22928-1 | 16 | 80 | 128 | 267 |
| 21568-1 | 16 | 80 | 144 | 305 |
| 22926-1 | 16 | 80 | 160 | 335 |
| 21569-1 | 16 | 96 | 96 | 242 |
| 21570-1 | 16 | 96 | 112 | 282 |
| 21571-1 | 16 | 96 | 128 | 325 |
| 21572-1 | 16 | 96 | 144 | 375 |
| 21573-1 | 16 | 96 | 160 | 240 |
| 22924-1 | 16 | 96 | 176 | 447 |
| 22907-1 | 16 | 96 | 192 | 482 |
| 21574-1 | 16 | 112 | 240 | 703 |
| 21575-1 | 16 | 128 | 128 | 431 |
| 21576-1 | 16 | 128 | 144 | 475 |
| 21577-1 | 16 | 128 | 256 | 862 |
| 21579-1 | 16 | 160 | 192 | 804 |
| 21578-1 | 16 | 160 | 320 | 1.400 |
| 21580-1 | 16 | 192 | 256 | 1.298 |
| 21581-1 | 16 | 192 | 320 | 1.611 |
| 20112-1 | 16 | 240 | 240 | 1.510 |
| 22097-1 | 16 | 320 | 320 | 1.350 |
| 28076-1 | 16 | 384 | 384 | 3.812 |

Full Bar ALUFIX 16

One row bar 16x16, Grid (A)16, hole diameter 8mm

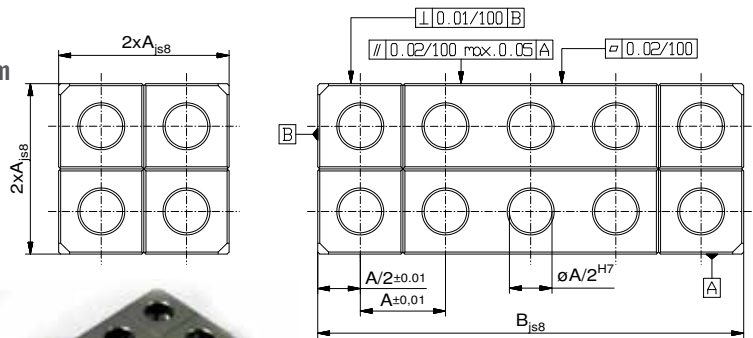
| Nr. | B | |
|---------|-----|-----|
| 21582-1 | 16 | 7 |
| 21583-1 | 32 | 14 |
| 21584-1 | 48 | 21 |
| 21585-1 | 64 | 27 |
| 21586-1 | 80 | 33 |
| 20654-1 | 96 | 39 |
| 20801-1 | 128 | 53 |
| 20799-1 | 160 | 66 |
| 21587-1 | 320 | 140 |



Full Bar ALUFIX 16

Two row bar 32x32, Grid (A)16, hole diameter 8mm

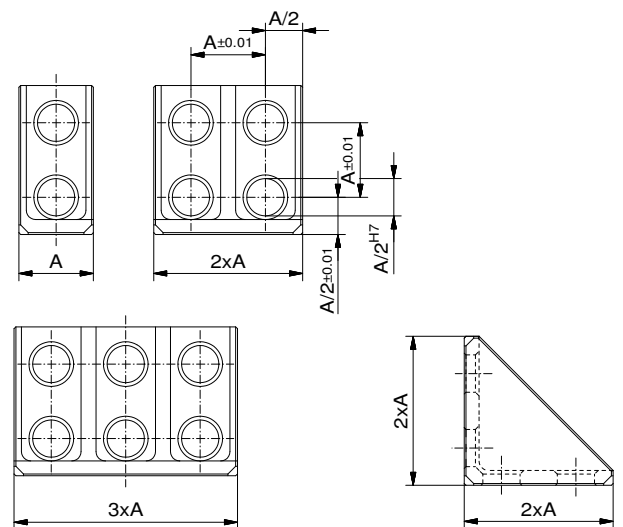
| Nr. | B | |
|---------|-----|-----|
| 21588-1 | 32 | 53 |
| 21589-1 | 48 | 79 |
| 21590-1 | 64 | 108 |
| 21591-1 | 80 | 131 |
| 23892-1 | 96 | 160 |
| 20812-1 | 112 | 200 |
| 20848-1 | 128 | 230 |
| 20849-1 | 160 | 268 |
| 21592-1 | 320 | 537 |



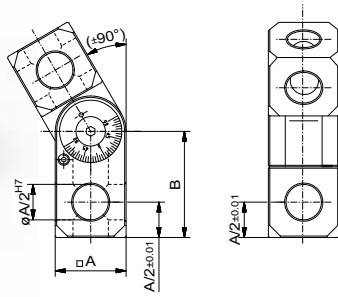
Angle bracket

Alufix Classic, A=16

| Nr. | A | |
|---------|----|----|
| 25101-1 | 1x | 10 |
| 25102-1 | 2x | 20 |
| 25103-1 | 3x | 32 |

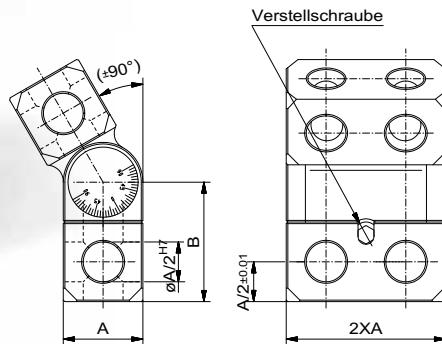


NewXS bars can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



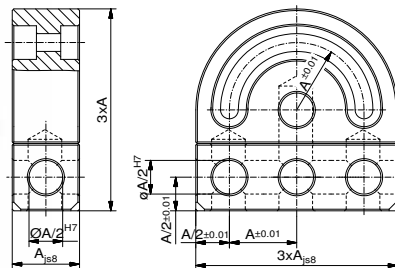
Knuckle

| Nr. | A (AF) | B | |
|---------|--------|----|----|
| 81668-1 | 16 | 45 | 28 |



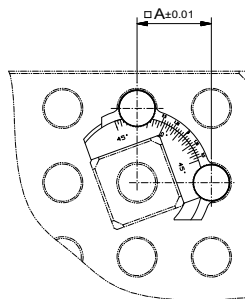
Double knuckle

| Nr. | A (AF) | B | |
|---------|--------|----|----|
| 81811-1 | 16 | 45 | 65 |



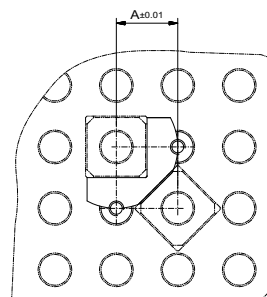
Swivel

| Nr. | A (AF) | |
|---------|--------|----|
| 24578-1 | 16 | 56 |



Heel block 45° - 90°

| Nr. | A (AF) | |
|-------|--------|---|
| 81607 | 16 | 4 |



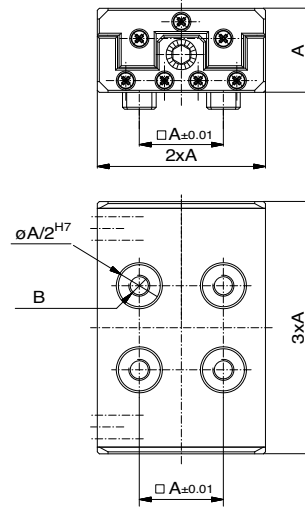
Heel block 45°/ 90°

| Nr. | A (AF) | |
|---------|--------|---|
| 23667-1 | 16 | 3 |

Roller slide

adjustment using a screw spindle

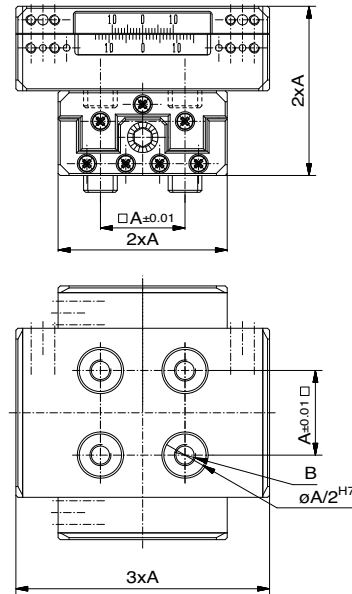
| Nr. | A (AF) | B | max. load | shift | |
|---------|--------|----|-----------|-------|----|
| 82453-1 | 16 | M4 | 20 kg | ±9 | 89 |



Cross roller slide

adjustment using a screw spindle

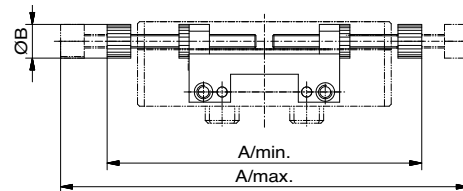
| Nr. | A (AF) | B | max. load | shift | |
|---------|--------|----|-----------|-------|-----|
| 82461-1 | 16 | M4 | 20 kg | ±9 | 178 |



Slide stop

for roller slides

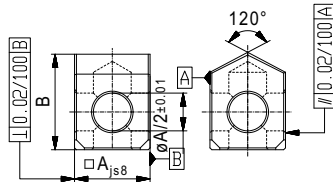
| Nr. | A/min | A/max | B | |
|---------|-------|-------|-----|----|
| 82411-1 | 59 | 77 | 6,4 | 98 |



NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



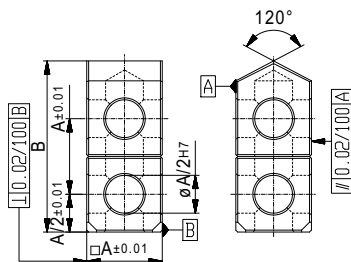
Arrange 2 delta blocks
in a V to support round parts



Delta block 120°

Form 1

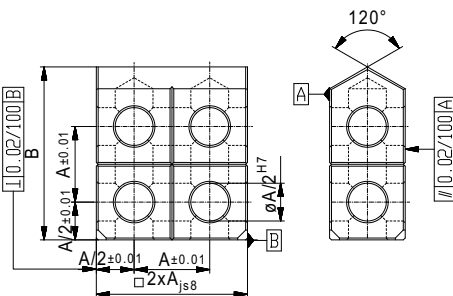
| Nr. | A(AF) | B | |
|---------|-------|----|---|
| 22240-1 | 16 | 20 | 8 |



Delta block 120°

Form 2

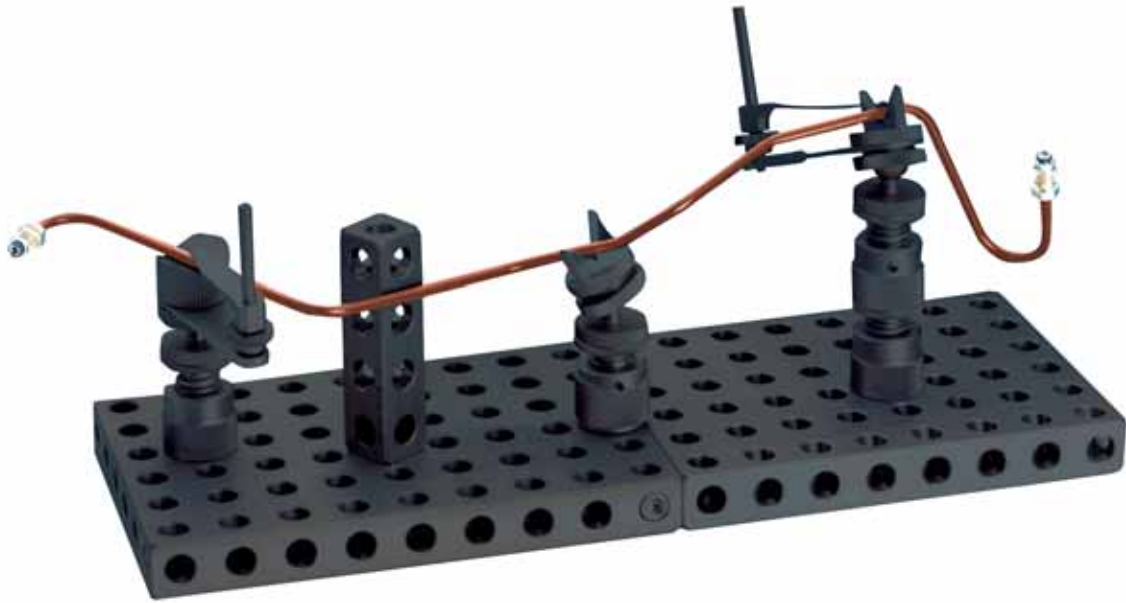
| Nr. | A(AF) | B | |
|---------|-------|----|----|
| 22252-1 | 16 | 36 | 15 |



Delta block 120°

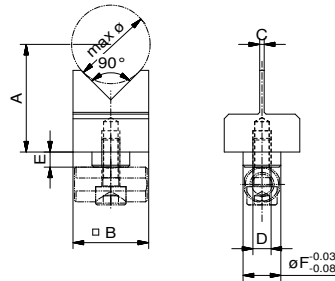
Form 3

| Nr. | A(AF) | B | |
|---------|-------|----|----|
| 22255-1 | 16 | 36 | 30 |



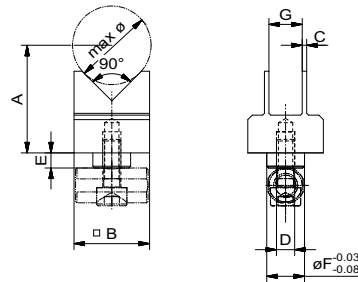
V piece 90° single

| Nr. | A | B(AF) | C | D | E | F | g |
|---------|----|-------|---|----|---|---|---|
| 80923-1 | 24 | 16 | 1 | M4 | 3 | 8 | 9 |



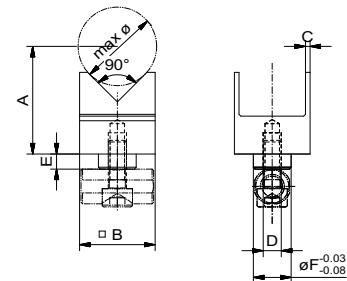
V piece 90° double, V narrow

| Nr. | A | B(AF) | C | D | E | F | G | g |
|---------|----|-------|---|----|---|---|---|----|
| 80921-1 | 24 | 16 | 1 | M4 | 3 | 8 | 7 | 10 |

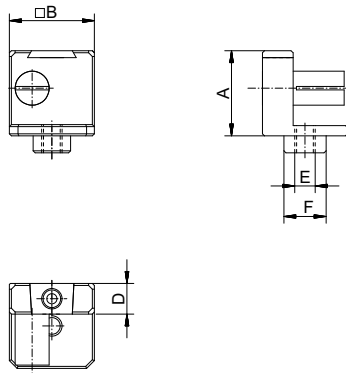


V piece 90° double, V wide

| Nr. | A | B(AF) | C | D | E | F | g |
|---------|----|-------|---|----|---|---|----|
| 80922-1 | 24 | 16 | 1 | M4 | 3 | 8 | 10 |

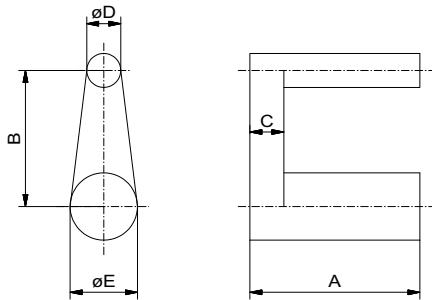


i NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Winder

| Nr. | A | B(AF) | D | E | F | |
|---------|----|-------|---|----|---|----|
| 80742-1 | 16 | 16 | 6 | M4 | 8 | 11 |



Deflector

| Nr. | A | B | C | D | E | |
|---------|----|----|---|---|-----|---|
| 22274-1 | 19 | 16 | 3 | 4 | 7,9 | 4 |



Winder tape

in plastic, 12 mm wide

| Nr. | length (m) |
|-------|------------|
| 00041 | 5 |

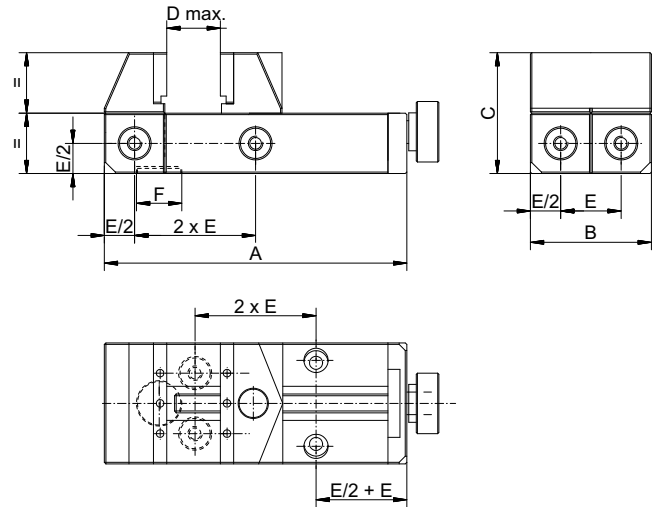
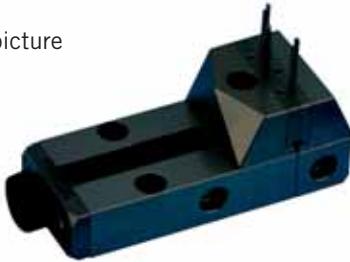
Round symmetrical parts quickly and easily positioned on V block for measuring and secured using winder, tape and deflector



Vise ALUFIX 16

| Nr | E (AF) | A | B | C | D | E | F | |
|---------|--------|----|----|----|----|----|---------|-----|
| 81784-1 | 16 | 80 | 32 | 32 | 40 | 16 | M12x0,5 | 310 |

Pins shown in picture not included



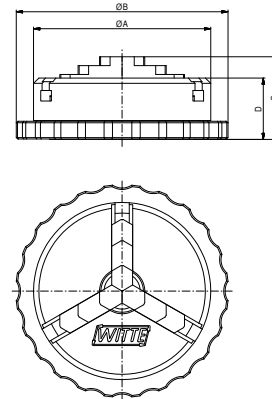
Pin ALUFIX 16

for vise

| Nr. | A | B | C | D | E | |
|---------|---|---|---|---|---|--|
| 24604-1 | | | | | | |

3-Jaw Keyless Chuck ALUFIX 16

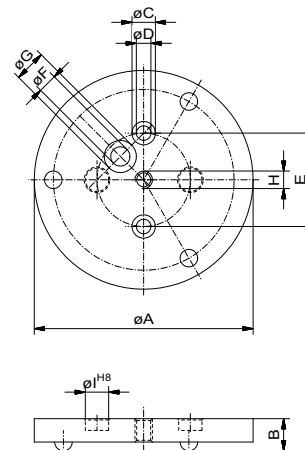
| Nr. | A | B | C | D | |
|---------|----|----|------|------|----|
| 82220-1 | 50 | 60 | 23,3 | 17,3 | 95 |



Centerplate ALUFIX 16

for keyless chuck

| Nr | A | B | C | D | E | F | G | H | I | |
|---------|----|----|---|---|----|-----|----|----|---|-----|
| 82371-1 | 75 | 11 | 8 | 5 | 32 | 6,6 | 11 | M6 | 8 | 100 |



NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.

For other versions of vises and keyless chucks please see our main catalogue, chapter "clamping elements"

ALUFIX

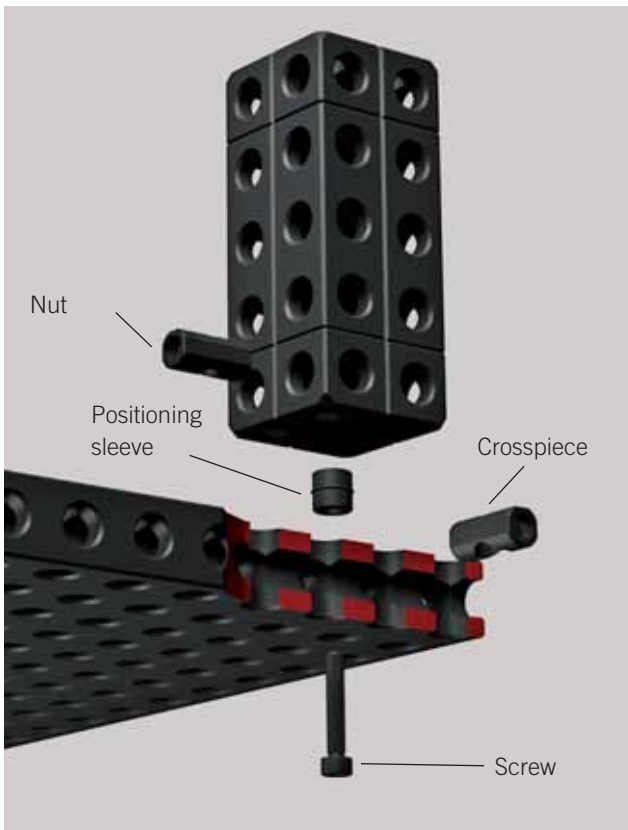
Connection Elements

A variety of elements allows combination of Alufix components whenever two opposite holes, or a hole and a nub are to be connected. This works also between different system sizes using reducer sleeves.



Quick connection

For fast, constantly changing fixtures we recommend using quick connection elements. A twin bolt is positioned between Alufix elements to be connected. An excentric slot on the lock slides round and grips the head of a twin bolt resulting in a tight connection.



Screw connection

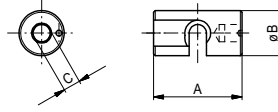
For lasting tight connections the screw connection has proved to be the best.



Lock Alufix

standard lock for quick connection

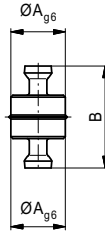
| Nr. | System | A | B | C | |
|-------|--------|----|---|-----|---|
| 23250 | AF 16 | 16 | 8 | SW3 | 4 |



Twin bolt

for quick connection

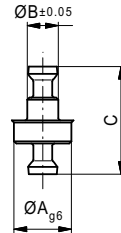
| Nr. | System | A | B | |
|-------|--------|---|----|---|
| 23247 | AF 16 | 8 | 15 | 3 |



Twin bolt

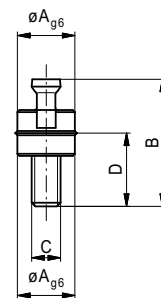
for bar 1D and base plate 2

| Nr. | System | A | B | C | |
|-------|--------|---|---|----|---|
| 23248 | AF 16 | 8 | 4 | 15 | 2 |



Combi bolt

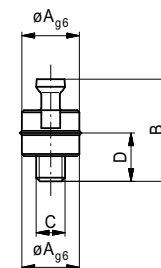
| Nr. | System | A | B | C | D | |
|-------|--------|---|------|----|------|---|
| 23249 | AF 16 | 8 | 17,7 | M4 | 10,2 | 3 |



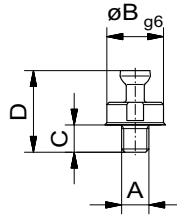
Combi bolt

shortened

| Nr. | System | A | B | C | D | |
|-------|--------|---|------|----|-----|---|
| 25742 | AF 16 | 8 | 14,2 | M4 | 6,7 | 1 |



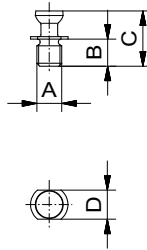
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Combi bolt

for grid plate without fitted bore and keyless chuck

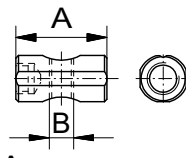
| Nr. | System | A | B | C | D | |
|-------|--------|----|---|-----|----|---|
| 25746 | AF16 | M4 | 8 | 3,5 | 11 | 2 |



Combi bolt

shortened, for elements with nubs

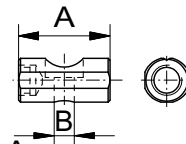
| Nr. | System | A | B | C | D | |
|-------|--------|----|-----|-----|-----|---|
| 20341 | AF 16 | M4 | 4,5 | 8,9 | SW5 | 1 |



Crosspiece nut

for screw connection

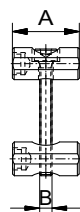
| Nr. | System | A | B | |
|---------|-----------|-----------|-----------|----------|
| 80620-1 | 16 | 16 | M3 | 2 |
| 80621-1 | 16 | 16 | M4 | 2 |
| 81277-1 | 16 | 16 | M3 | 2 |



Crosspiece

for screw connection

| Nr. | System | A | B | |
|---------|-----------|-----------|------------|----------|
| 21596-1 | 16 | 16 | 3,3 | 2 |
| 21597-1 | 16 | 16 | 4,3 | 2 |



Connecting set

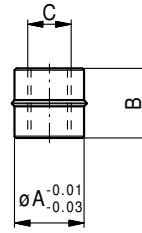
for screw connection

| Nr. | System | A | B | |
|---------|-----------|-----------|-----------|-----------|
| 80697-1 | 16 | 16 | M3 | 4 |
| 80698-1 | 16 | 16 | M4 | 14 |

Positioning sleeve

AF 16

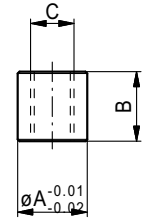
| Nr. | A | B | C | g |
|----------|---|---|----|---|
| 324216-1 | 8 | 6 | M5 | 1 |



Positioning sleeve

plain

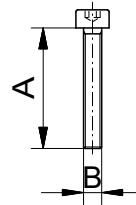
| Nr. | A | B | C | g |
|---------|---|---|----|---|
| 21599-1 | 8 | 8 | M5 | 1 |



Hex socket head screw

DIN 912

| Nr. | A | B | DIN | WAF | g |
|----------|-----------|-----------|-------------|------------|------------|
| 17255-S1 | 8 | M4 | 7984 | 2,5 | 1 |
| 11546-S1 | 10 | M4 | 7984 | 2,5 | 1 |
| 16141-S1 | 12 | M4 | 7984 | 2,5 | 1,5 |
| 16359-S1 | 16 | M4 | 7984 | 3 | 1,5 |



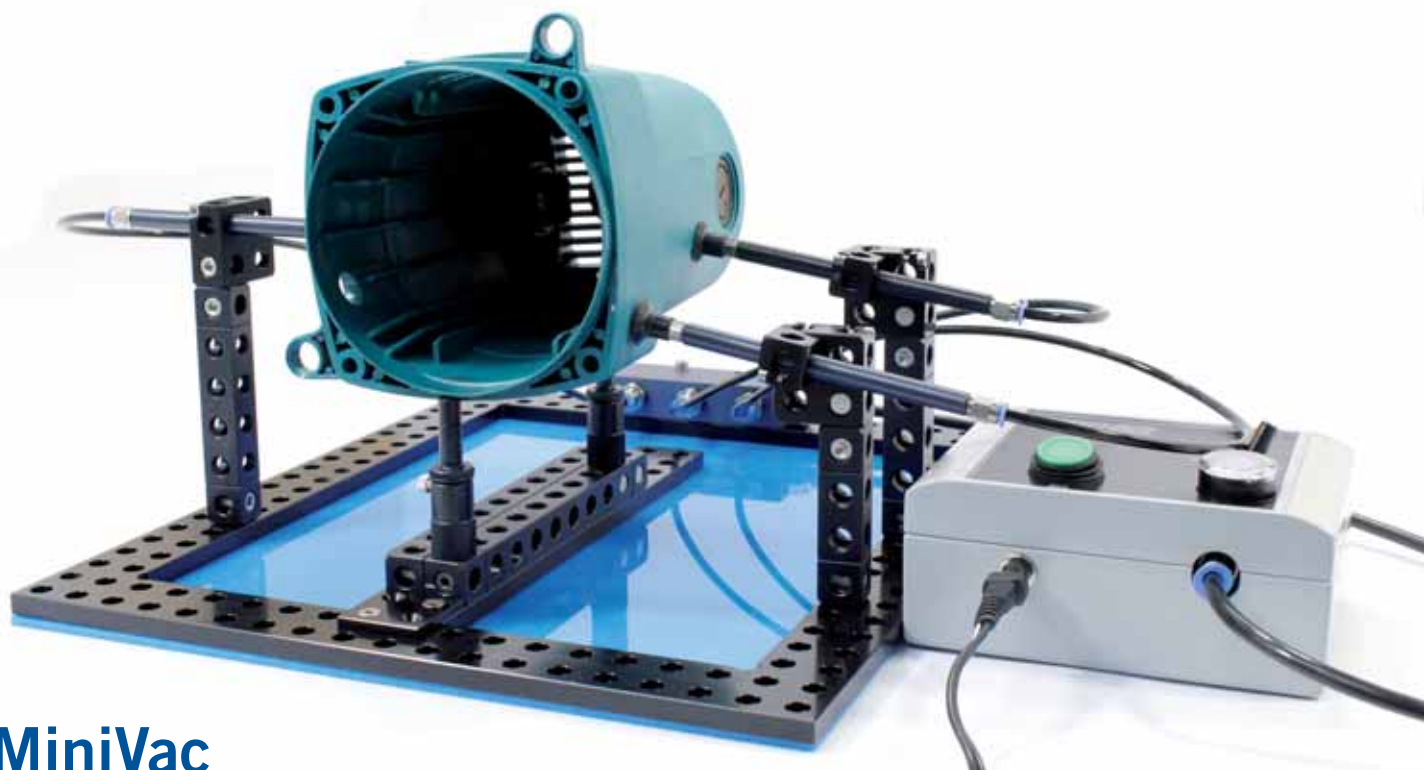
Standard thread sizes are printed in **bold print**

Tool

| Nr. | WAF | g |
|-------|-----|-----|
| 17375 | 2 | 210 |
| 17374 | 2,5 | 220 |
| 17376 | 3 | 230 |



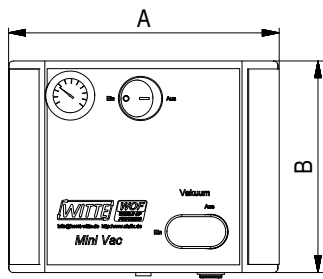
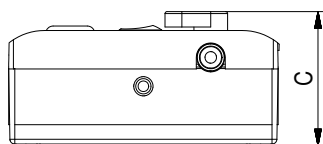
NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



MiniVac

Vacuum clamping system

The MiniVac vacuum pump supplies air intake for up to 6 suckers using a minimum of space. An integrated tank with pressure difference switch prevents an abrupt drop in vacuum (and in worst case release of workpiece) and avoids pump running continuously.



MiniVac pump

3500ccm/h

| Nr. | A | B | C | |
|--------|-----|-----|----|-----|
| 284752 | 140 | 110 | 70 | 480 |

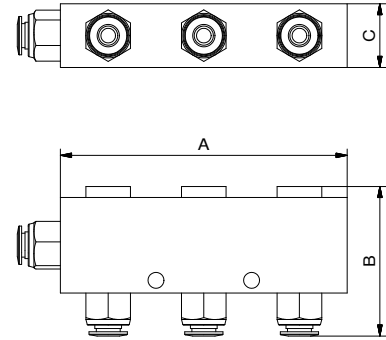


- Operation via 220V power pack, integrated on/off switch with light display, vacuum switch and manometer. Double function membrane pump, max. 90° volume, 3500ccm/h. tank approx. 150ccm.

MiniVac Distributor

with 6 connections inc. 1m connection hose to vacuum pump

| Nr. | A | B | C | |
|--------|----|----|----|-----|
| 284753 | 90 | 47 | 20 | 180 |



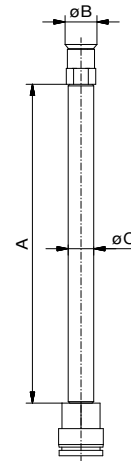
MiniVac Sucker

comprising: tube, sucker, connector

| Nr. | A | B | C | |
|--------|-----|----|---|----|
| 284391 | 100 | 10 | 8 | 20 |



The suckers have a standard diameter of 10mm and are made of NBR. Other materials, dimensions, forms (i.e. oval) on request.



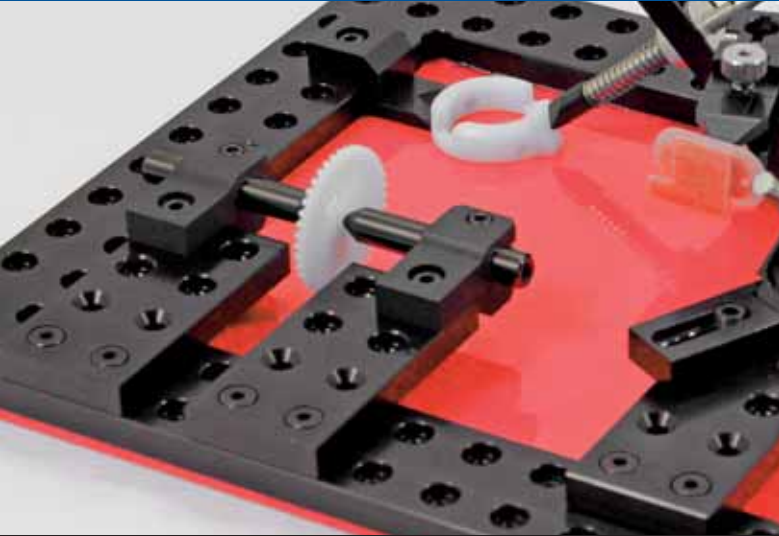
MiniVac – Suction hose

In PU, black

| Nr. | D | L | |
|-------|-----|----|----|
| 00958 | 6x1 | 1m | 17 |



NewXS components can be anodized in different colours. Black (with suffix -1) is standard. Anodized natural is also available. Other colours on request.



Available on request

NewXS 10

Modular fixturing system for optical measuring and checking instruments

Components in system size New XS10 are available on request

