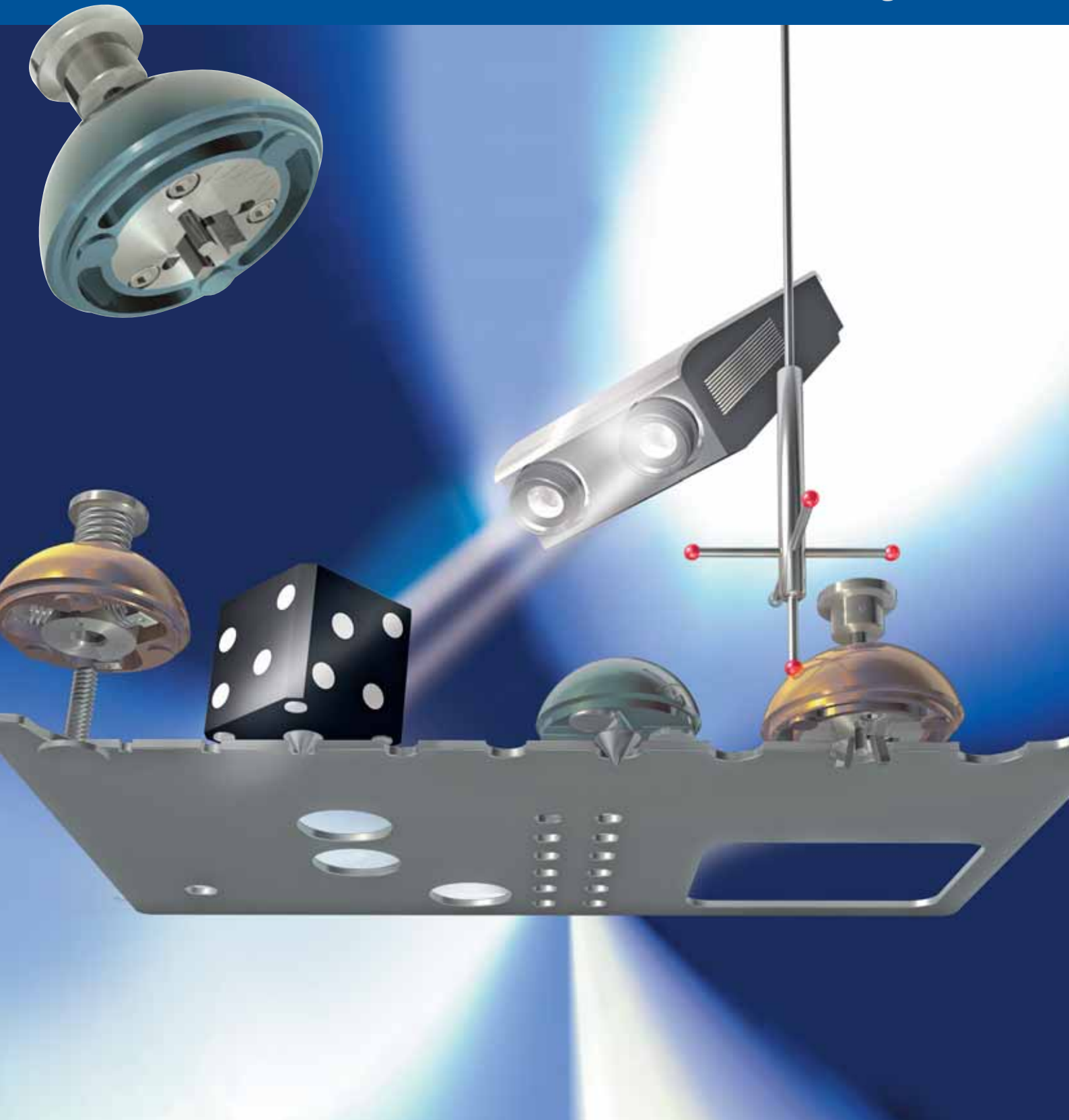


FIXINSPECT[®]

Catalogue 2018^{E05}



- Measuring Accessories
- Targets • Target Frame





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 major companies from automotive and aircraft industries rely on Witte products and their experience of over 45 years.



Certification

Witte Barskamp KG is certified according to

- DIN EN ISO 9001
- DIN EN ISO 9100
- QSF-A (Aerospace suppliers)



FIXINSPECT® Measuring Accessories

Fixinspect measuring accessories simplify and considerably speed up tactile and non-contact measuring processes. All Fixinspect accessories are mounted on workpiece features, where dimensional data is required. It is easier and faster to measure the accessories than the features themselves.

Defined contact surfaces and high-precision manufacturing of the accessories mean measuring results can be calculated back to the workpiece feature location.

FIXINSPECT HK

Measuring accessories
for tactile measuring

4



FIXINSPECT PG

Measuring accessories
for photogrammetry systems

16



FIXINSPECT TA

Targets and reference markers
for photogrammetric measuring

22



FIXINSPECT KR

Target frame

25



FIXINSPECT LT

Measuring accessories
for laser trackers.
Hidden point adapters

28

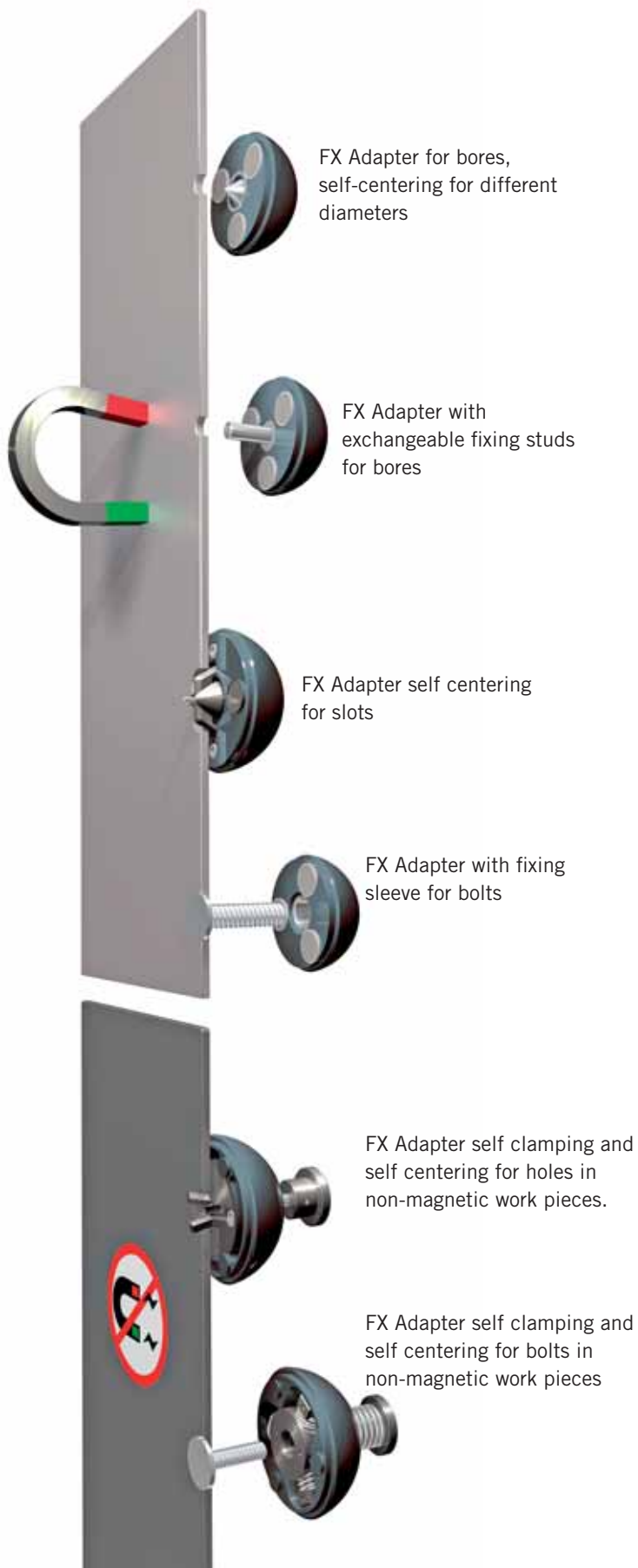


FIXINSPECT FT

Feature Targets

34





Fixinspect HK adapters for tactile measuring

FIXINSPECT HK measuring accessories comprise of accurately machined hemispheres fixed centrally in bores or on studs.

By touching the hemisphere surface the position of the bore or stud on the work piece can be defined precisely and much faster than with conventional methods.

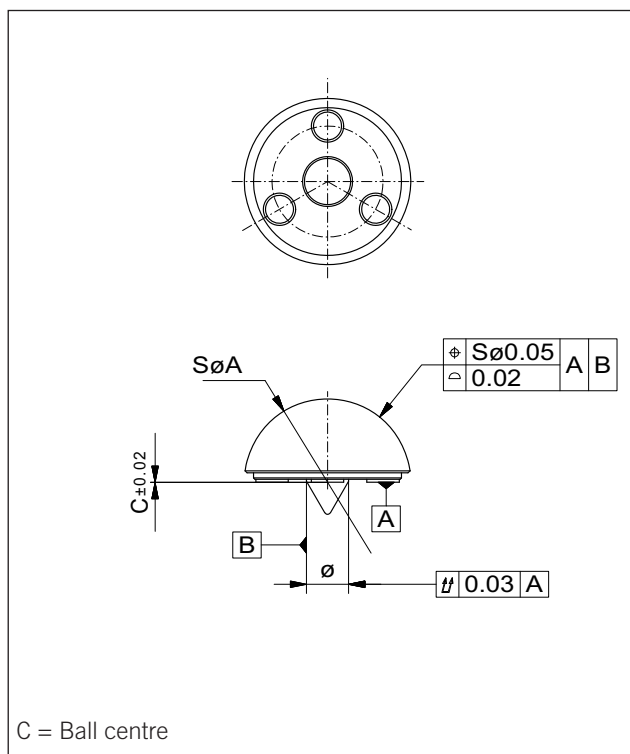
FIXINSPECT hemispheres can quickly be adapted to any desired bore diameter using exchangeable fixing studs in steps of 0,1mm.

The non-magnetic variety is centered via three spring loaded pins.

Centering on bolts takes place via fitted or threaded sleeves, for non-magnetic parts via clamping jaws.

Adapters with magnetic inserts are used for all magnetic work pieces, for non-magnetic metals and plastics pin or jaw adapters which simultaneously centre and clamp are used.

All hemispheres are made of high-tensile aluminium with a tolerance of 0,02mm, are anodized dark red and reflection free.



Form and position tolerances for Fixinspect "R" measuring accessories

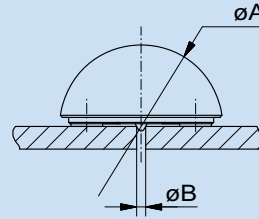
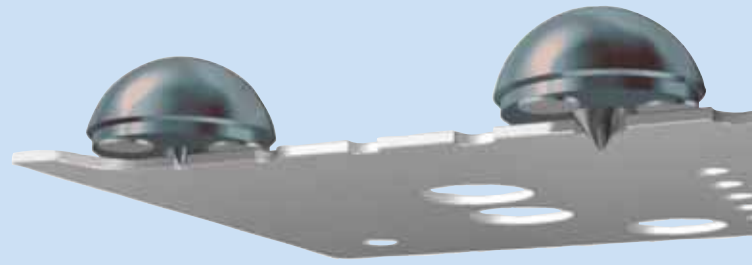
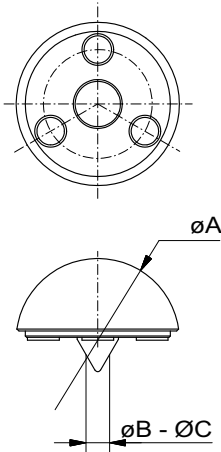


FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

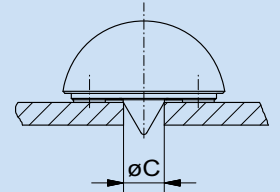
FX Adapter

magnetic, self-centering

| Nr. | A | B | C | g |
|-------|----|-----|----|----|
| 85198 | 36 | 2 | 9 | 39 |
| 87488 | 30 | 4,5 | 8 | 20 |
| 89172 | 25 | 3 | 6 | 10 |
| 92427 | 36 | 8 | 14 | 44 |



Minimum hole diameter
to be measured



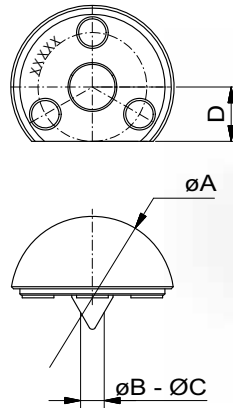
Maximum hole diameter
to be measured

Springloaded FIXINSPECT® Adapters self-centre in bores. Hole diameters from 2mm to 9mm can be measured using the same adapter (#85198), without having to make any further changes using studs or sleeves.

FX Adapter

magnetic, one flat, self-centering

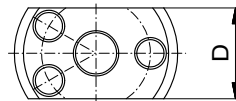
| Nr. | A | B | C | D | g |
|-------|----|-----|---|----|----|
| 85199 | 36 | 2 | 9 | 12 | 33 |
| 89101 | 30 | 4,5 | 8 | 7 | 21 |
| 89173 | 25 | 3 | 6 | 5 | 10 |

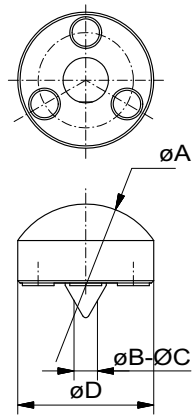


FX Adapter

magnetic, parallel flats, self-centering

| Nr. | A | B | C | D | g |
|-------|----|-----|---|------|----|
| 85200 | 36 | 2 | 9 | 20 | 27 |
| 89103 | 30 | 4,5 | 8 | 17,5 | 18 |
| 90414 | 25 | 3 | 6 | 13 | 10 |

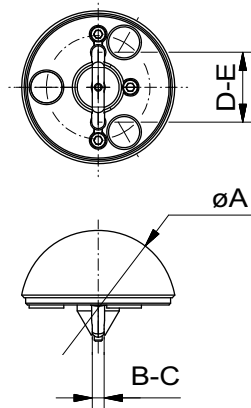




FX Adapter

magnetic, elongated, self-centering

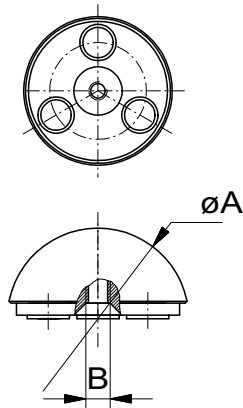
| Nr. | A | B | C | D | g |
|-------|----|---|---|----|----|
| 85203 | 36 | 2 | 9 | 30 | 30 |
| 89108 | 30 | 3 | 6 | 20 | 10 |



FX Adapter ^(DBGM)

magnetic, for slots

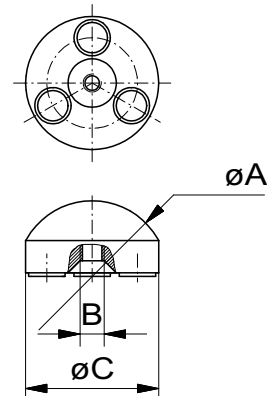
| Nr. | A | B | C | D | E | g |
|--------|----|-----|------|------|------|----|
| 281681 | 30 | 3,0 | 7,5 | 10,0 | 14,5 | 22 |
| 281682 | 36 | 4,0 | 8,5 | 12,0 | 16,5 | 36 |
| 281683 | 36 | 4,0 | 8,5 | 15,0 | 19,5 | 36 |
| 281684 | 36 | 5,0 | 9,5 | 16,0 | 20,5 | 36 |
| 281685 | 36 | 6,0 | 10,5 | 16,0 | 20,5 | 36 |



FX Adapter

magnetic, for fixing stud M4

| Nr. | A | B | g |
|-------|----|----|----|
| 84801 | 30 | M4 | 20 |
| 84802 | 25 | M4 | 10 |




FX Adapter

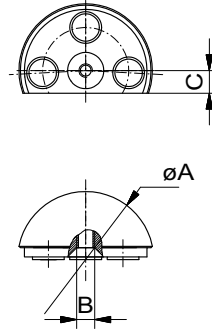
magnetic, elongated, for fixing stud M4

| Nr. | A | B | C | g |
|-------|----|----|----|----|
| 84805 | 25 | M4 | 22 | 10 |

FX Adapter

magnetic, one flat surface, for fixing stud M4

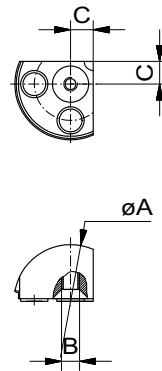
| Nr. | A | B | C | g |
|---|----|----|---|----|
| 84808 | 30 | M4 | 5 | 10 |
|  84809 | 25 | M4 | 5 | 10 |



FX Adapter 90°

magnetic, for fixing stud M4, corner cut to 90° angle

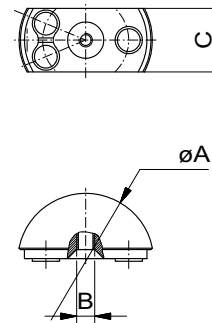
| Nr. | A | B | C | g |
|-------|----|----|---|----|
| 84811 | 25 | M4 | 5 | 10 |



FX Adapter

magnetic, parallel flat surfaces, for fixing stud M4

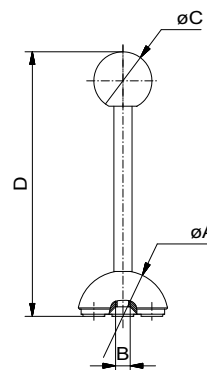
| Nr. | A | B | C | g |
|-------|----|----|----|----|
| 84815 | 30 | M4 | 14 | 12 |
| 84814 | 25 | M4 | 14 | 8 |



FX Adapter with ball tip


magnetic, for concealed measuring points, with screw-on grip

| Nr. | A | B | C | D | g |
|-------|----|----|----|----|----|
| 84820 | 25 | M4 | 16 | 73 | 50 |



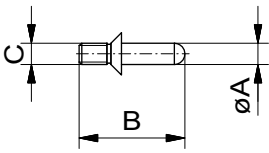
Preference item:
Articles with green diamond →
are available ex stock!



 **FIXINSPECT** measuring accessories are available anodized in different colours. Red is standard, other colours on request.

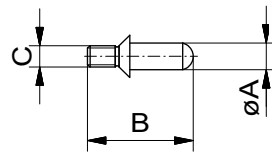
Fixing studs

∅2,0 - ∅4,9; B=20



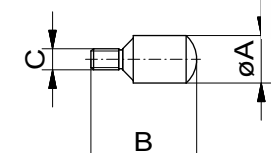
Fixing studs

∅5,0 - ∅6,9; B=20



Fixing studs

∅7,0 - ∅9,9; B=20



| Nr | A | C | g |
|-------|---------|----|---|
| 32050 | 2,0 | M4 | 1 |
| 32051 | 2,1 | M4 | 1 |
| 32052 | 2,2 | M4 | 1 |
| 32053 | 2,3 | M4 | 1 |
| 32054 | 2,4 | M4 | 1 |
| 32055 | 2,5(M3) | M4 | 1 |
| 32056 | 2,6 | M4 | 1 |
| 32057 | 2,7 | M4 | 1 |
| 32058 | 2,8 | M4 | 1 |
| 32059 | 2,9 | M4 | 1 |

| | | | |
|-------|-----|----|---|
| 32060 | 3,0 | M4 | 1 |
| 32061 | 3,1 | M4 | 1 |
| 32062 | 3,2 | M4 | 1 |
| 32063 | 3,3 | M4 | 1 |
| 32064 | 3,4 | M4 | 1 |
| 32065 | 3,5 | M4 | 1 |
| 32066 | 3,6 | M4 | 1 |
| 32067 | 3,7 | M4 | 1 |
| 32068 | 3,8 | M4 | 1 |
| 32069 | 3,9 | M4 | 1 |

| | | | |
|-------|---------|----|---|
| 32070 | 4,0 | M4 | 1 |
| 32071 | 4,1 | M4 | 1 |
| 32072 | 4,2(M5) | M4 | 1 |
| 32073 | 4,3 | M4 | 1 |
| 32074 | 4,4 | M4 | 1 |
| 32075 | 4,5 | M4 | 1 |
| 32076 | 4,6 | M4 | 1 |
| 32077 | 4,7 | M4 | 1 |
| 32078 | 4,8 | M4 | 1 |
| 32079 | 4,9 | M4 | 1 |

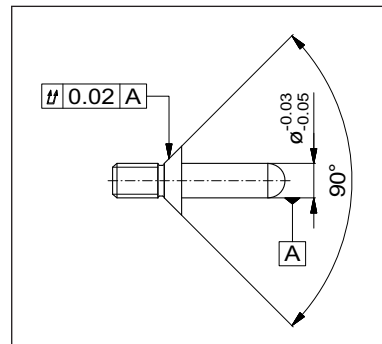
| Nr | A | C | g |
|-------|---------|----|---|
| 32080 | 5,0(M6) | M4 | 1 |
| 32081 | 5,1 | M4 | 1 |
| 32082 | 5,2 | M4 | 1 |
| 32083 | 5,3 | M4 | 1 |
| 32084 | 5,4 | M4 | 1 |
| 32085 | 5,5 | M4 | 1 |
| 32086 | 5,6 | M4 | 1 |
| 32087 | 5,7 | M4 | 1 |
| 32088 | 5,8 | M4 | 1 |
| 32089 | 5,9 | M4 | 1 |

| | | | |
|-------|---------|----|---|
| 32090 | 6,0 | M4 | 1 |
| 32091 | 6,1 | M4 | 1 |
| 32092 | 6,2 | M4 | 1 |
| 32093 | 6,3 | M4 | 1 |
| 32094 | 6,4 | M4 | 1 |
| 32095 | 6,5 | M4 | 1 |
| 32096 | 6,6 | M4 | 1 |
| 32097 | 6,7 | M4 | 1 |
| 32098 | 6,8(M8) | M4 | 1 |
| 32099 | 6,9 | M4 | 1 |

| Nr | A | C | g |
|-------|-----|----|---|
| 32100 | 7,0 | M4 | 2 |
| 32101 | 7,1 | M4 | 2 |
| 32102 | 7,2 | M4 | 2 |
| 32103 | 7,3 | M4 | 2 |
| 32104 | 7,4 | M4 | 2 |
| 32105 | 7,5 | M4 | 2 |
| 32106 | 7,6 | M4 | 2 |
| 32107 | 7,7 | M4 | 2 |
| 32108 | 7,8 | M4 | 2 |
| 32109 | 7,9 | M4 | 2 |

| | | | |
|-------|----------|----|---|
| 32110 | 8,0 | M4 | 2 |
| 32111 | 8,1 | M4 | 2 |
| 32112 | 8,2 | M4 | 2 |
| 32113 | 8,3 | M4 | 2 |
| 32114 | 8,4 | M4 | 2 |
| 32115 | 8,5(M10) | M4 | 2 |
| 32116 | 8,6 | M4 | 2 |
| 32117 | 8,7 | M4 | 2 |
| 32118 | 8,8 | M4 | 2 |
| 32119 | 8,9 | M4 | 2 |

| | | | |
|-------|-----|----|---|
| 32120 | 9,0 | M4 | 2 |
| 32121 | 9,1 | M4 | 2 |
| 32122 | 9,2 | M4 | 2 |
| 32123 | 9,3 | M4 | 2 |
| 32124 | 9,4 | M4 | 2 |
| 32125 | 9,5 | M4 | 3 |
| 32126 | 9,6 | M4 | 3 |
| 32127 | 9,7 | M4 | 3 |
| 32128 | 9,8 | M4 | 3 |
| 32129 | 9,9 | M4 | 3 |



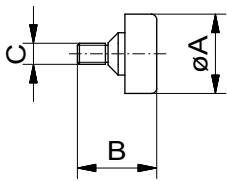
Form and position tolerances for Fixinspect "R" fixing studs

Preference item:
Articles with green diamond →
are available ex stock!



Fixing studs

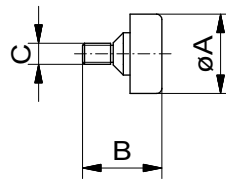
∅10,0 - ∅12,9; B=15



| Nr | A | C | g |
|-------|-----------|----|---|
| 32150 | 10,0 | M4 | 2 |
| 32151 | 10,1 | M4 | 2 |
| 32152 | 10,2(M12) | M4 | 2 |
| 32153 | 10,3 | M4 | 2 |
| 32154 | 10,4 | M4 | 2 |
| 32155 | 10,5 | M4 | 2 |
| 32156 | 10,6 | M4 | 2 |
| 32157 | 10,7 | M4 | 2 |
| 32158 | 10,8 | M4 | 2 |
| 32159 | 10,9 | M4 | 2 |
| 32160 | 11,0 | M4 | 2 |
| 32161 | 11,1 | M4 | 2 |
| 32162 | 11,2 | M4 | 2 |
| 32163 | 11,3 | M4 | 2 |
| 32164 | 11,4 | M4 | 2 |
| 32165 | 11,5 | M4 | 2 |
| 32166 | 11,6 | M4 | 2 |
| 32167 | 11,7 | M4 | 2 |
| 32168 | 11,8 | M4 | 2 |
| 32169 | 11,9 | M4 | 2 |
| 32170 | 12,0 | M4 | 2 |
| 32171 | 12,1 | M4 | 2 |
| 32172 | 12,2 | M4 | 2 |
| 32173 | 12,3 | M4 | 2 |
| 32174 | 12,4 | M4 | 2 |
| 32175 | 12,5 | M4 | 3 |
| 32176 | 12,6 | M4 | 3 |
| 32177 | 12,7 | M4 | 3 |
| 32178 | 12,8 | M4 | 3 |
| 32179 | 12,9 | M4 | 3 |

Fixing studs

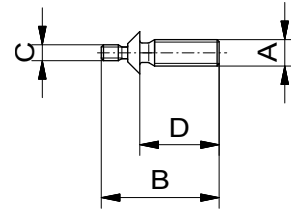
∅13,0 - ∅14,9; B=15



| Nr | A | C | g |
|-------|------------|----|---|
| 32180 | 13,0 | M4 | 3 |
| 32181 | 13,1 | M4 | 3 |
| 32182 | 13,2 | M4 | 3 |
| 32183 | 13,3 | M4 | 3 |
| 32184 | 13,4 | M4 | 3 |
| 32185 | 13,5 | M4 | 3 |
| 32186 | 13,6 | M4 | 3 |
| 32187 | 13,7 | M4 | 3 |
| 32188 | 13,8 | M4 | 3 |
| 32189 | 13,9 | M4 | 3 |
| 32190 | 14,0 (M16) | M4 | 3 |
| 32191 | 14,1 | M4 | 3 |
| 32192 | 14,2 | M4 | 3 |
| 32193 | 14,3 | M4 | 3 |
| 32194 | 14,4 | M4 | 3 |
| 32195 | 14,5 | M4 | 3 |
| 32196 | 14,6 | M4 | 3 |
| 32197 | 14,7 | M4 | 3 |
| 32198 | 14,8 | M4 | 3 |
| 32199 | 14,9 | M4 | 3 |

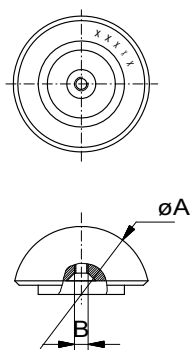
Threaded fixing pins

M6 - M12



| Nr | A | C | B | D | g |
|-------|---------|----|------|------|----|
| 54566 | M8 | M4 | 15 | 10 | 3 |
| 32925 | M6 | M3 | 16 | 9 | 2 |
| 32926 | M8 | M3 | 16 | 9 | 3 |
| 32927 | M10 | M3 | 16 | 8 | 5 |
| 55019 | M6 | M3 | 18 | 10,7 | 2 |
| 55020 | M8 | M3 | 18 | 10,7 | 4 |
| 52223 | M6 | M4 | 20 | 12 | 3 |
| 52224 | M8 | M4 | 20 | 12 | 5 |
| 52225 | M10 | M4 | 20 | 12 | 10 |
| 52226 | M12 | M4 | 20 | 12 | 10 |
| 54517 | M5 | M3 | 23 | 15,7 | 2 |
| 53676 | M6 | M3 | 23 | 15,7 | 3 |
| 53677 | M8 | M3 | 23 | 15,7 | 5 |
| 53678 | M10 | M3 | 23 | 15,7 | 10 |
| 54519 | M12x1,5 | M3 | 23 | 15,7 | 10 |
| 55740 | M12 | M3 | 23 | 15,7 | 11 |
| 55534 | M12x1,5 | M3 | 49,3 | 40 | 30 |

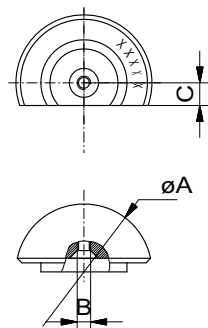




FX adapter

threaded

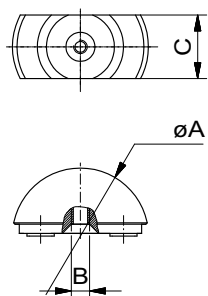
| Nr. | A | B | |
|-------|----|----|----|
| 32010 | 30 | M3 | 16 |
| 32012 | 25 | M3 | 9 |



FX adapter

threaded, one flat

| Nr. | A | B | C | |
|-------|----|----|---|----|
| 32014 | 30 | M3 | 5 | 10 |
| 32016 | 25 | M3 | 5 | 7 |



FX adapter

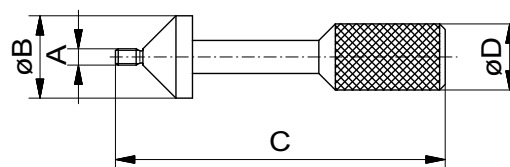
threaded, parallel flats

| Nr. | A | B | C | |
|-------|----|----|----|----|
| 32018 | 30 | M3 | 14 | 10 |
| 32020 | 25 | M3 | 14 | 10 |

Fixing screw

self-centering for threaded adapters

| Nr. | A | B | C | D | |
|-------|----|----|----|----|----|
| 32022 | M3 | 15 | 60 | 12 | 30 |



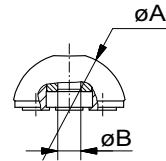
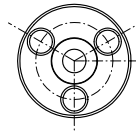
Preference item:
Articles with green diamond →
are available ex stock!



FX adapter

magnetic, with fixing sleeve

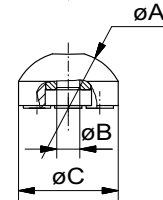
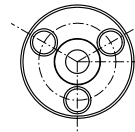
| | Nr | A | B | | |
|---|-------|----|------|-------|----|
| ◆ | 84840 | 25 | 5,1 | (M5) | 11 |
| ◆ | 84833 | 30 | 5,1 | (M5) | 20 |
| ◆ | 84841 | 25 | 6,1 | (M6) | 10 |
| ◆ | 84834 | 30 | 6,1 | (M6) | 17 |
| | 84825 | 35 | 5,1 | (M5) | 33 |
| ◆ | 84835 | 30 | 8,1 | (M8) | 20 |
| | 84826 | 35 | 6,1 | (M6) | 33 |
| | 84836 | 30 | 10,1 | (M10) | 17 |
| | 84827 | 35 | 8,1 | (M8) | 31 |
| | 84828 | 35 | 10,1 | (M10) | 29 |



FX adapter

magnetic, elongated, with fixing sleeve

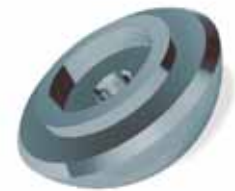
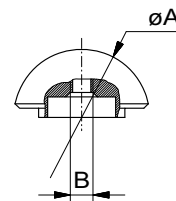
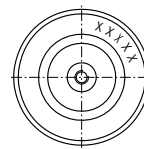
| | Nr. | A | B | C | |
|--|-------|----|-----|------|----|
| | 84846 | 25 | 5,1 | (M5) | 22 |
| | 84847 | 25 | 6,1 | (M6) | 22 |



FX Adapter

with through thread

| | Nr | A | B | |
|---|----------|----|-----------|----|
| | 51110 | 30 | M4 | 20 |
| | 32025 *) | 30 | M5x1,5875 | 20 |
| | 54957 | 30 | M5 | 10 |
| | 32026 | 30 | M6 | 10 |
| | 32027 | 30 | M8 | 14 |
| | 32028 | 30 | M10 | 10 |
| | 55333 | 25 | M4 | 10 |
| | 32033 *) | 25 | M5x1,5875 | 9 |
| ◆ | 54956 | 25 | M5 | 9 |
| ◆ | 32034 | 25 | M6 | 10 |
| ◆ | 32035 | 25 | M8 | 10 |
| ◆ | 32036 | 25 | M10 | 10 |

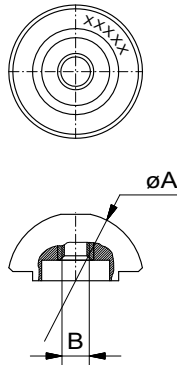
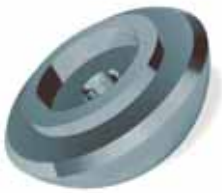


*) For welded bolts, double thread, only one turn cut

Preference item:
Articles with green diamond →
are available ex stock!



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.



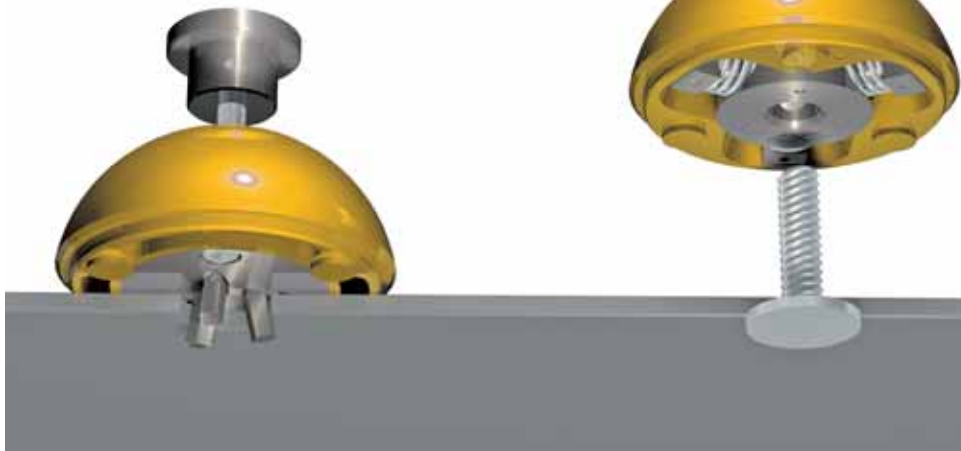
i *) For welded bolts, double thread, only one turn cut

FX adapter

with through thread and fixing sleeve

| Nr | A | B | |
|----------|----|-----------|----|
| 96721 | 30 | M4 | 20 |
| 96722 *) | 30 | M5x1,5875 | 20 |
| 96799 | 30 | M5 | 10 |
| 96607 | 30 | M6 | 10 |
| 96723 | 30 | M8 | 14 |
| 96724 | 30 | M10 | 10 |
| 96800 | 25 | M4 | 10 |
| 96725 *) | 25 | M5x1,5875 | 9 |
| 96801 | 25 | M5 | 9 |
| 96726 | 25 | M6 | 10 |
| 96727 | 25 | M8 | 10 |
| 96728 | 25 | M10 | 10 |

FIXINSPECT accessories self clamping and self centering for holes in non-magnetic work pieces

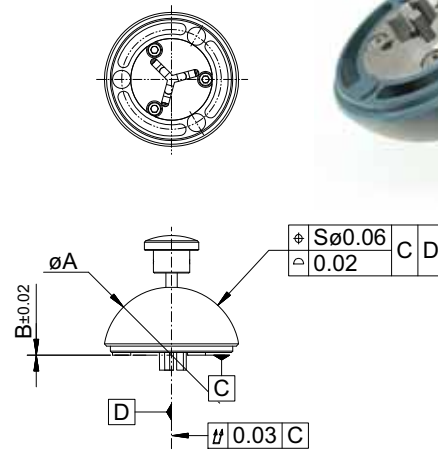


FIXINSPECT accessories self clamping and self centering for bolts in non-magnetic work pieces

FX Adapter ^(DBGM)

with clamping pins for holes

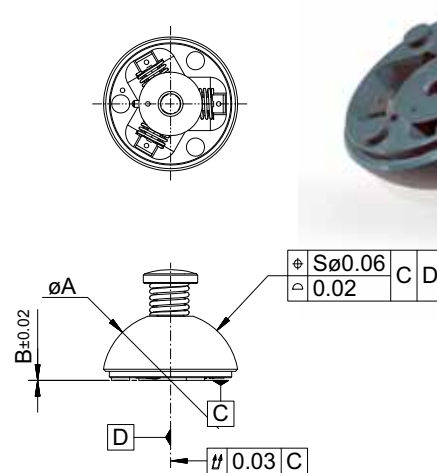
| Nr. | A | B | C | g |
|--------|----|------|------|----|
| 281875 | 30 | 3,0 | 4,0 | 18 |
| 281827 | 30 | 4,0 | 5,0 | 18 |
| 281828 | 30 | 5,0 | 6,0 | 18 |
| 281829 | 30 | 6,0 | 7,0 | 18 |
| 281671 | 30 | 7,0 | 8,0 | 18 |
| 281672 | 36 | 8,0 | 9,5 | 30 |
| 281673 | 36 | 9,5 | 11,0 | 30 |
| 281674 | 36 | 11,0 | 12,5 | 30 |
| 281675 | 36 | 12,0 | 14,0 | 30 |



FX Adapter ^(DBGM)

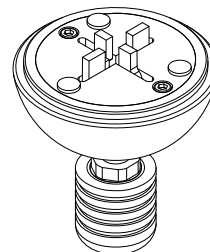
with clamping jaws for welded bolts

| Nr. | A | B | C | g |
|--------|----|-----|------|----|
| 281676 | 30 | 2,9 | 4,2 | 19 |
| 281677 | 30 | 4,2 | 5,5 | 19 |
| 281678 | 30 | 5,6 | 6,9 | 19 |
| 281679 | 36 | 7,0 | 8,4 | 35 |
| 281680 | 36 | 8,5 | 10,0 | 35 |



FX Adapter ^(DBGM)

with 4 clamping pins, for slots



Details and technical data available on request



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

^(DBGM) = Utility model

#84700 Set Fixinspect® HK

in wooden case, 236 pcs., 5,6 kg, comprising:

Measuring accessory (M-A) for threaded or pressed holes

| Nr. | St. | Name |
|-------|-----|------------------------------|
| 84801 | 4 | M-A ø30 magnetic |
| 84802 | 4 | M-A ø25 magnetic |
| 84805 | 1 | M-A ø25/22 magnetic |
| 84808 | 1 | M-A ø30/20 magnetic |
| 84809 | 1 | M-A ø25/17,5 magnetic |
| 84811 | 1 | M-A ø25/17,5 magnetic |
| 84814 | 1 | M-A ø25/14 magnetic |
| 84815 | 1 | M-A ø30/14 magnetic |
| 84820 | 1 | M-A ø25 magnetic |
| 32010 | 1 | M-A ø30 threaded |
| 32012 | 1 | M-A ø25 threaded |
| 32014 | 1 | M-A ø30/20 threaded |
| 32016 | 1 | M-A ø25/17,5 threaded |
| 32018 | 1 | M-A ø30/14 threaded |
| 32020 | 1 | M-A ø25/14 threaded |
| 32022 | 2 | Fixing screw M3 |
| 32050 | 1 | Fixing stud D=2,0 |
| ↓ | | ↓ |
| 32209 | 1 | Fixing stud D=15,9 |
| 31764 | 16 | Threaded fixing pin M3/2,5 |
| 31765 | 2 | Threaded fixing pin M4/3,3 |
| 31766 | 6 | Threaded fixing pin M5/4,2 |
| 31767 | 4 | Threaded fixing pin M6/5,0 |
| 31768 | 2 | Threaded fixing pin M8/6,8 |
| 31769 | 2 | Threaded fixing pin M10/8,5 |
| 31770 | 2 | Threaded fixing pin M12/10,2 |
| 31771 | 2 | Threaded fixing pin M16/14,0 |

i All dias for fixing studs are included 1x except for:
 32055 Dia 2,5 M3 2x
 32063 Dia 3,3 M4 2x
 32072 Dia 4,2 M5 2x
 32080 Dia 5,0 M6 3x
 32098 Dia 6,8 M8 3x
 32115 Dia 8,5 M10 2x

i The selection of items in this set comprises a comprehensive range of sizes for different applications.

Measuring accessory (M-A) for welded or threaded bolts

| Nr. | St. | Name |
|-------|-----|--------------------------------|
| 84825 | 1 | M-A ø35 with sleeve d=5,1 |
| 84826 | 1 | M-A ø35 with sleeve d=6,1 |
| 84827 | 1 | M-A ø35 with sleeve d=8,1 |
| 84828 | 1 | M-A ø35 with sleeve d=10,1 |
| 84833 | 1 | M-A ø30 with sleeve d=5,1 |
| 84834 | 1 | M-A ø30 with sleeve d=6,1 |
| 84835 | 1 | M-A ø30 with sleeve d=8,1 |
| 84836 | 1 | M-A ø30 with sleeve d=10,1 |
| 84840 | 1 | M-A ø25 with sleeve d=5,1 |
| 84841 | 1 | M-A ø25 with sleeve d=6,1 |
| 84846 | 1 | M-A ø22 with sleeve d=5,1 |
| 84847 | 1 | M-A ø22 with sleeve d=6,1 |
| 32025 | 1 | M-A ø30 threaded M5 |
| 32026 | 1 | M-A ø30 threaded M6 |
| 32027 | 1 | M-A ø30 threaded M8 |
| 32028 | 1 | M-A ø30 threaded M10 |
| 32033 | 1 | M-A ø25 threaded M5 |
| 32034 | 1 | M-A ø25 threaded M6 |
| 32035 | 1 | M-A ø25 threaded M8 |
| 32036 | 1 | M-A ø25 threaded M10 |
| 85153 | 1 | Wooden case with 2 metal trays |



i FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

Laser pointer to mark mounting positions for Fixinspect accessories

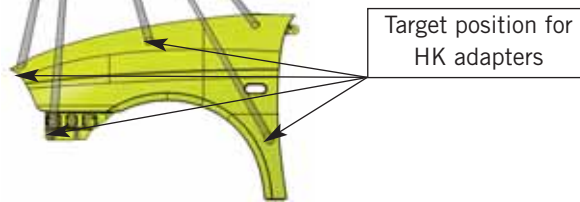
3D laser projector

A programmable laser pointer projects accurate contours of measuring accessories in two colours on all kinds of parts. With the help of this technology target positions and type of adapter are shown in green on the surface of a part. Time consuming identification, mix-ups or omissions are avoided.

To remove adapters the same technology in red is used. Quantity, position and type of accessory can be configured at any time (all necessary information is placed in a CAD file). Apart from the outline contour also item number, name, additional information and arrows (i.e. for concealed positions not accessible to light rays) can be shown.



Fender with FX adapters, the target positions and other information is projected directly onto the part



Witte-RFID

Radio Frequency Identification enables clear identification and comprehensive saving of all product relevant and life cycle data. Saving takes place on securely implanted transponders, which are written and read by electronic pens.

The transponders (D=8mm x H=3mm) have 500, 1000 or 2000 figure memory capacity. For fixed information (worldwide exclusive identity number, item number, name, manufacturer, date of production) approx 100 figures are required.

The remaining memory can be individually written (i.e. application, storage place, checking intervals etc.)

The pin can either be connected to a USB port or used wireless via Bluetooth. Reading and writing can be done on a PC via a standard program or special software (i.e. storage management).

All Witte Alufix components with a minimum size can be equipped ex works with a transponder. Retrofitting of used parts at a later date is also possible.



Reader pen with USB interface



Saved data RFID-chip with individually assembled information



Measuring accessories for photogrammetry systems

The Fixinspect PG adapters can be placed on the work piece as needed and have an individual coded dot-matrix for measuring with photogrammetry systems. Magnets hold the dice to the work piece, pins or spring loaded cones ensure the exact positioning of the dice. Special adapters are available for work piece edges or corners.

Witte has developed a code system for photogrammetry accessories. Each code denotes the different configuration of dots on the 5 available surfaces of each dice as well as the colour in which it has been anodized.

Code 1 is black, code 2 is red, code 3 is violet.

Individual coding is also available on request.

Please contact us for further information.

We reserve the right to make technical changes.

Fixinspect PG accessories in use

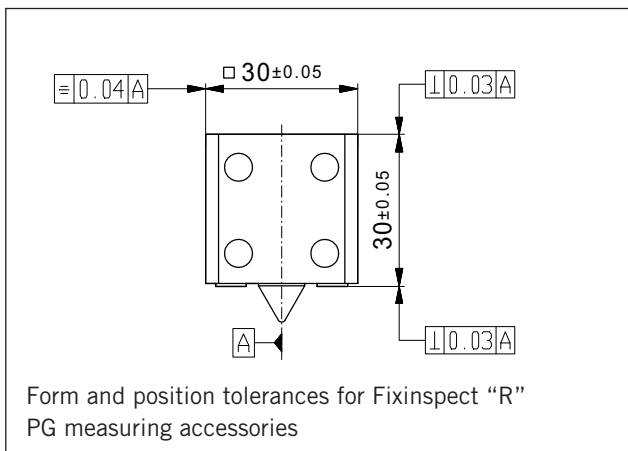
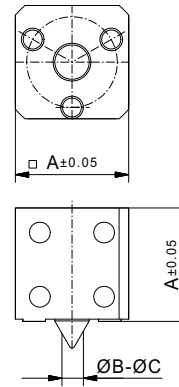


Photo: AICON 3D systems

PG adapter cube

magnetic, self-centering

| Nr. | A | B | C | Code | |
|--------|----|---|----|------|----|
| 900102 | 30 | 2 | 9 | 1 | 29 |
| 900202 | 30 | 2 | 9 | 2 | 29 |
| 900302 | 30 | 2 | 9 | 3 | 29 |
| 900103 | 30 | 8 | 14 | 1 | 29 |
| 900203 | 30 | 8 | 14 | 2 | 29 |
| 900303 | 30 | 8 | 14 | 3 | 29 |

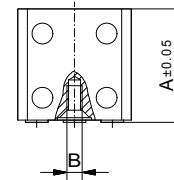
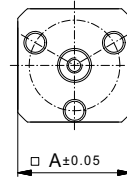


PG adapter cube

magnetic, for use with fixing studs

| Nr. | A | B | Code | |
|--------|----|----|------|----|
| 900101 | 30 | M4 | 1 | 70 |
| 900201 | 30 | M4 | 2 | 70 |
| 900301 | 30 | M4 | 3 | 70 |

suitable fixing studs on pages 8-9



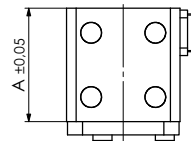
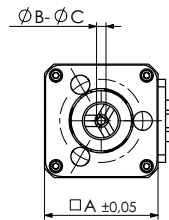
PG adapter cube

with collet, self centering, operated by push pin

| Nr. | A | B | C | Code | |
|--------|----|-----|-----|------|----|
| 900117 | 30 | 2,5 | 4,5 | 1 | 80 |
| 900217 | 30 | 2,5 | 4,5 | 2 | 80 |
| 900317 | 30 | 2,5 | 4,5 | 3 | 80 |

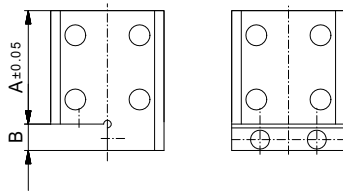
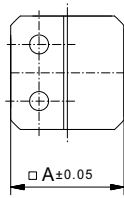
| Nr. | A | B | C | Code | |
|--------|----|-----|-----|------|----|
| 900118 | 30 | 4,5 | 6,5 | 1 | 80 |
| 900218 | 30 | 4,5 | 6,5 | 2 | 80 |
| 900318 | 30 | 4,5 | 6,5 | 3 | 80 |

| Nr. | A | B | C | Code | |
|--------|----|-----|-----|------|----|
| 900119 | 30 | 6,5 | 8,5 | 1 | 80 |
| 900219 | 30 | 6,5 | 8,5 | 2 | 80 |
| 900319 | 30 | 6,5 | 8,5 | 3 | 80 |



Version with clamping pins for holes on request

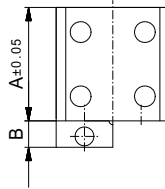
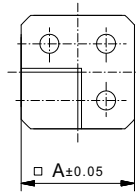
Special types / individual codes, i.e. layout of dots, on request
Subject to technical changes



PG adapter cube

magnetic, to mount on edges of workpiece

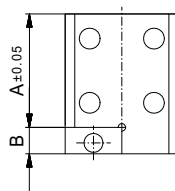
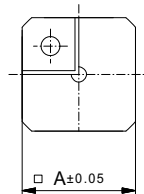
| Nr. | A | B | Code | |
|--------|----|----|------|-----|
| 900104 | 30 | 7 | 1 | 82 |
| 900204 | 30 | 7 | 2 | 82 |
| 900304 | 30 | 7 | 3 | 82 |
| 900109 | 30 | 25 | 1 | 104 |
| 900209 | 30 | 25 | 2 | 104 |
| 900309 | 30 | 25 | 3 | 104 |



PG adapter cube

magnetic, 90° corner projection

| Nr. | A | B | Code | |
|--------|----|----|------|----|
| 900105 | 30 | 7 | 1 | 78 |
| 900205 | 30 | 7 | 2 | 78 |
| 900305 | 30 | 7 | 3 | 78 |
| 900110 | 30 | 25 | 1 | 88 |
| 900210 | 30 | 25 | 2 | 88 |
| 900310 | 30 | 25 | 3 | 88 |



PG adapter cube

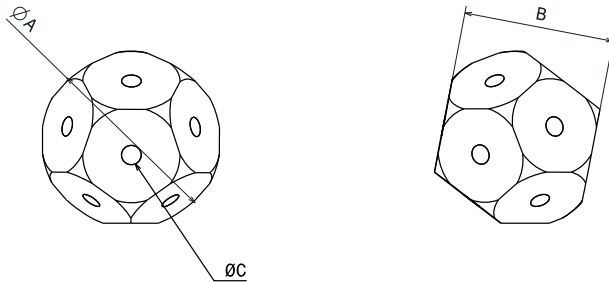
magnetic, 90° corner recess

| Nr. | A | B | Code | |
|--------|----|---|------|----|
| 900106 | 30 | 7 | 1 | 84 |
| 900206 | 30 | 7 | 2 | 84 |
| 900306 | 30 | 7 | 3 | 84 |

PG adapter „dodecahedron“

with fixing hole Dia 8^{H7}

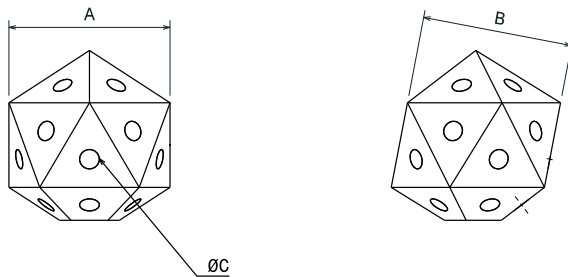
| Nr. | A | B | C | |
|--------|----|----|-----|-----|
| 283759 | 50 | 42 | 5,5 | 135 |



PG adapter „icosahedron“

with fixing hole Dia 8^{H7}

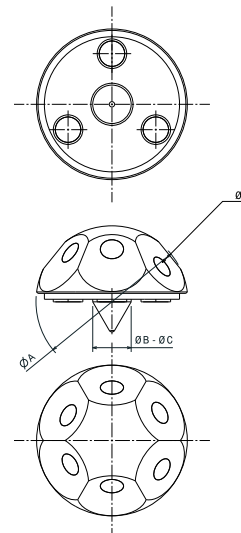
| Nr. | A | B | C | |
|--------|-------|----|-----|-----|
| 283760 | 44,96 | 42 | 5,5 | 122 |



PG adapter „hexahedron“

magnetic, self centering

| Nr. | A | B | C | D | |
|--------|----|---|---|-----|----|
| 283761 | 36 | 2 | 9 | 5,5 | 30 |



Versions for non-magnetic metals and plastics on request

Special types / individual codes, i.e. layout of dots, on request
Subject to technical changes



#96877 Basic Set PG

Set of PG measuring accessories (PG M-A) with code 1 and fixing studs; 2,7kg; 37 pcs

| | | |
|--------|---|-------------------------------------|
| 900101 | 4 | FX PG for use with fixing studs |
| 900102 | 4 | FX PG, self centering for 2-9mm |
| 900103 | 4 | FX PG, self centering for 8-14mm |
| 900104 | 2 | FX PG to sit on edges of workpieces |
| 900105 | 4 | FX PG with corner step 90° |
| 900106 | 2 | FX PG with cut out corner 90° |
| 32110 | 4 | Fixing stud ø8 |
| 32150 | 4 | Fixing stud ø10 |
| 32170 | 4 | Fixing stud ø12 |
| 32200 | 4 | Fixing stud ø15 |
| 96878 | 1 | Storage case |

PG adapter cube on chuck



PG adapter cube on 3 jaw keyless chuck



i This set up can be fixed i.e. on bolts or in large diameters



Photo: AICON 3D systems

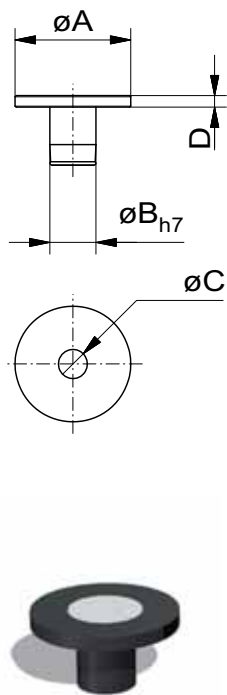
i Special types / individual codes, i.e. layout of dots, on request
Subject to technical changes

TA Position Marker Targets for digital camera measuring systems

Witte TA position marker targets replace the usual dot stickers. The targets have a circumferential slot with an O-ring guaranteeing a good fit into Alufix Classic or ECO Bars.

The targets support simple modification of camera angle and point density to create a reference. They offer unlimited reusability and changes of position, depending on application and camera angle.

DBGM : Utility model



TA position marker target with ceramic insert

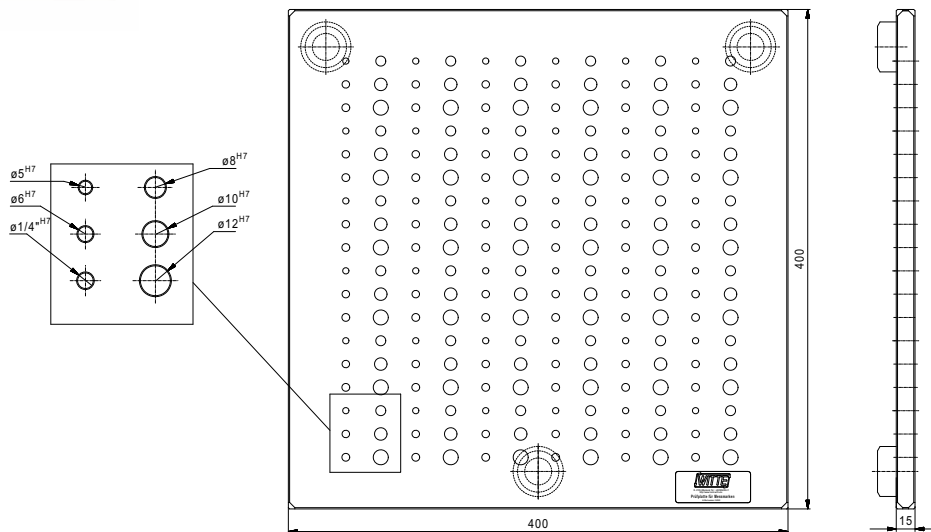
| Nr. | A | B | C | D | |
|---------------|----|--------|----|---|----|
| 96203 | 20 | 8h7 | 10 | 2 | 8 |
| 96399 | 20 | 12,5h7 | 10 | 2 | 10 |
| 96745 | 15 | 8h7 | 5 | 2 | 17 |
| 283521 | 32 | 20 | 10 | 2 | 30 |



Check plate for TA targets supplied in case

| Nr. | A | B | C | |
|--------------|----|-----|-----|------|
| 94868 | 15 | 400 | 400 | 2361 |

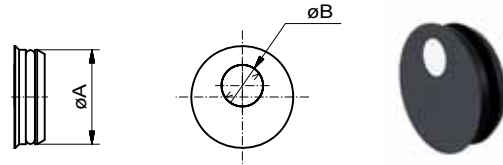
in high-tensile aluminium, anodized black, incl. 36 holes with Dia 5h7, 6h7, 1/4" h7, 8h7, 10h7, 12h7 for storing targets



TA Position marker Target, flat ^(DBGM)

with target for Alufix bars

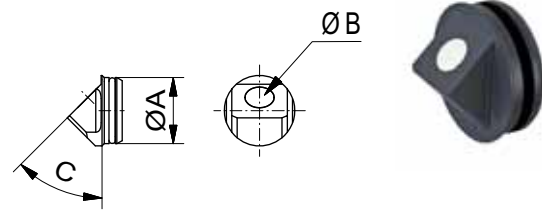
| Nr. | A | B | AF | |
|--------|------|-----|----|---|
| 283468 | 12,5 | 5,5 | 25 | 1 |
| 283469 | 20 | 5,5 | 40 | 1 |
| 283470 | 25 | 5,5 | 50 | 1 |



TA Position marker Target, angled ^(DBGM)

with integrated angled target for Alufix bars

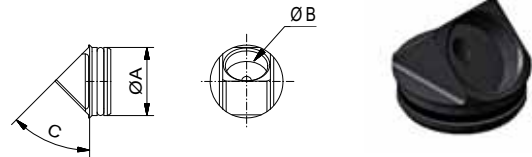
| Nr. | A | B | C | AF | |
|--------|------|-----|-----|----|---|
| 283723 | 12,5 | 5,5 | 45° | 25 | 3 |
| 283724 | 20 | 5,5 | 45° | 40 | 4 |
| 283725 | 25 | 5,5 | 45° | 50 | |



Holder for TA position marker Target angled ^(DBGM)

for Alufix bars, to mount TA Position marker #283468

| Nr. | A | B | C | AF | |
|--------|----|------|-----|----|---|
| 283726 | 20 | 12,5 | 45° | 40 | 3 |
| 283727 | 25 | 12,5 | 45° | 50 | 5 |



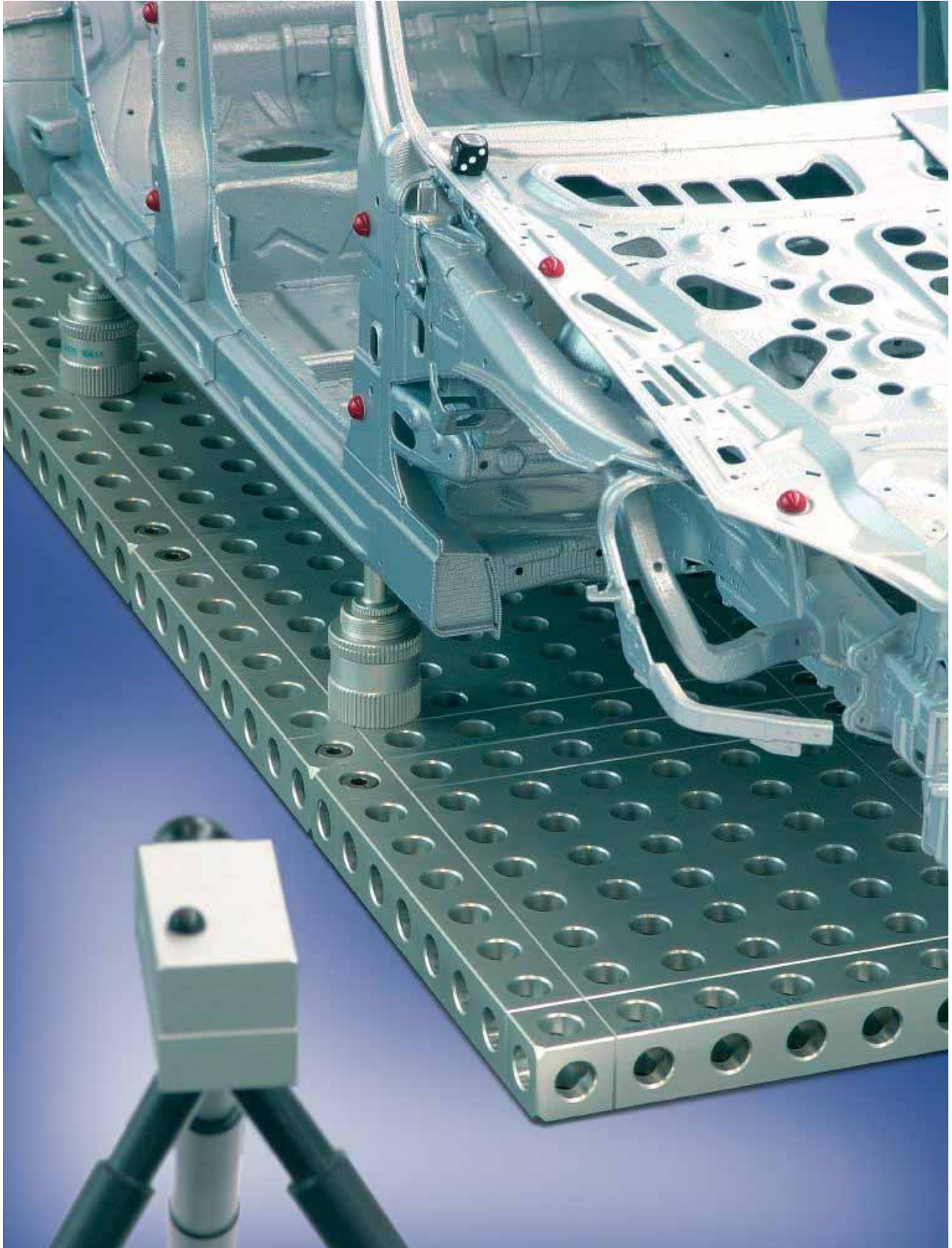
Application in an Alufix Light bar.
Mounting targets on different sides results in individual dot layout for orientation



Available on request
corner target holders (45°)

These targets can be mounted directly in Alufix Classic and ECO bar holes. All targets sit tightly in bars via a seal and a fitting lip.

^(DBGM) : Utility model



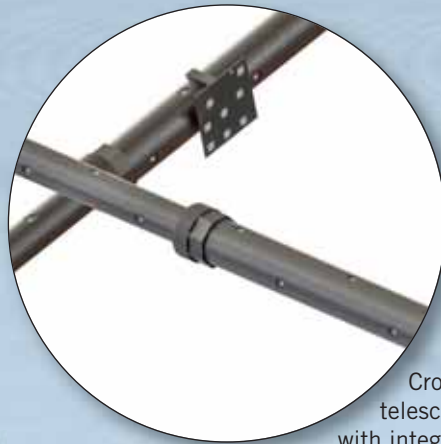


KR Target frame for photogrammetry measuring systems DBGM

Setting frames are used where there is no fixture available on which to mount reference markers or targets. The components can be connected as a flat frame and several frames connected using struts represent a complete cage. All elements are combineable with each other and equipped with targets. Additional targets can be clipped on. The basis comprises of rails (in Aluquick) for positioning and securing telescopic columns (Telefix). Alternatively they can be set up on an Alufix frame or a Witte sandwich plate. To accommodate a vehicle roof taper serrated joints in Posifix enable angling of frame segments. All cross struts are engineered with telescopic function (in several basic lengths and corresponding adjustment ranges). This guarantees maximum flexibility in creation and desired size of frame. All rails and telescopic columns are marked with scales in millimeter to enable repeatability of frame when rebuilding.

DBGM : Utility model

Detail of Fixinspect KR Setting frames



Cross struts in telescopic fashion with integrated targets



Rails with stops, millimeter scales and switchable magnets to fix on steel base plate

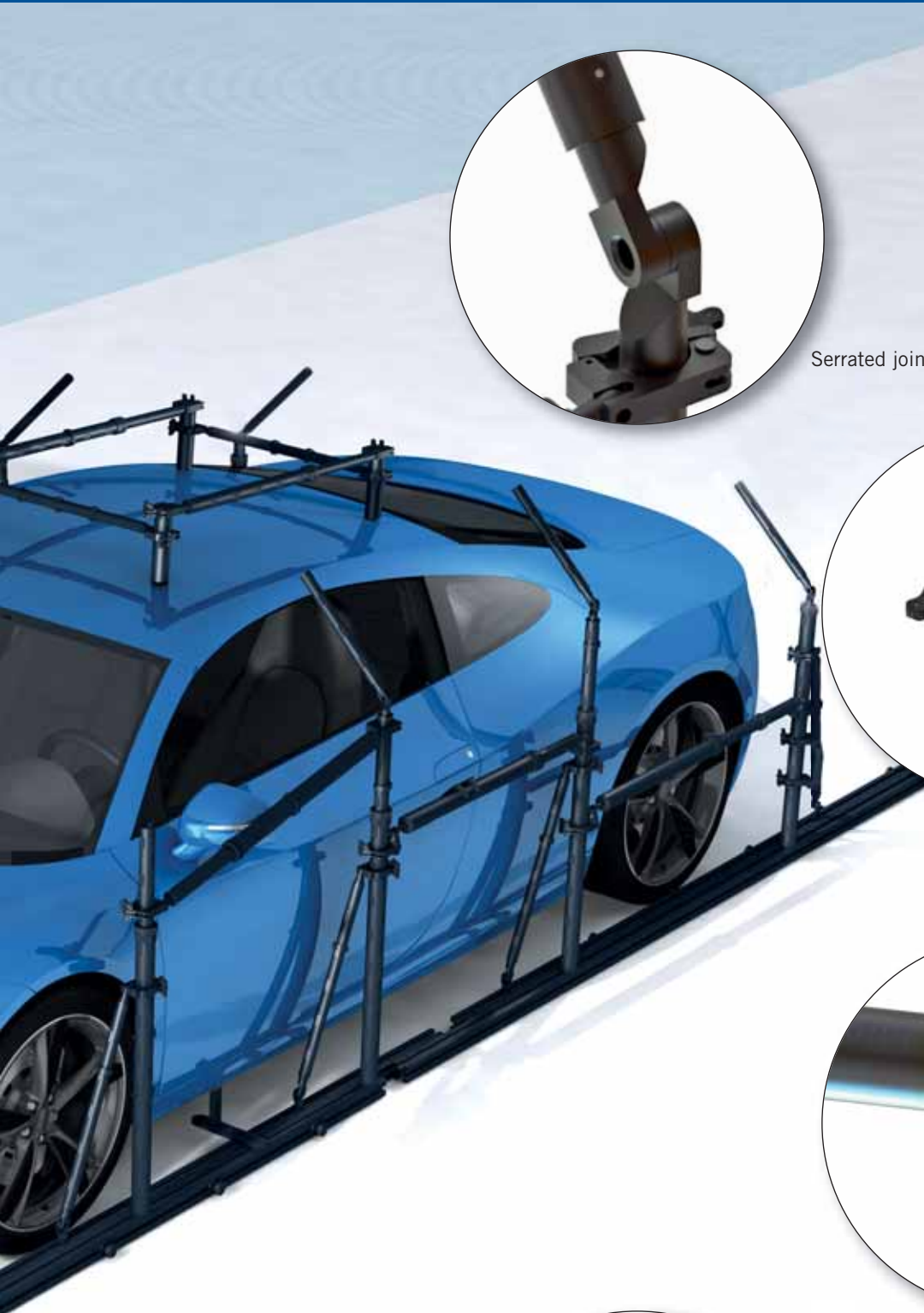


Telescopic column mounted to rail



Telescopic column with scale and eccentric clamp





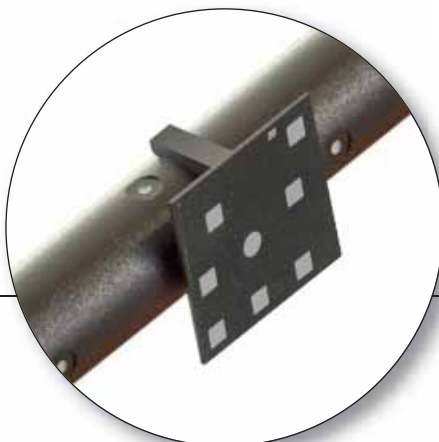
Serrated joint



Strut with universal bracket



Cross strut with ball and magnetic seat

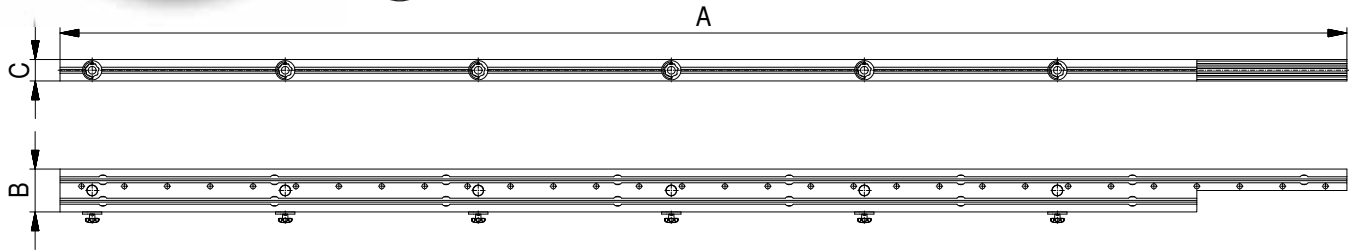
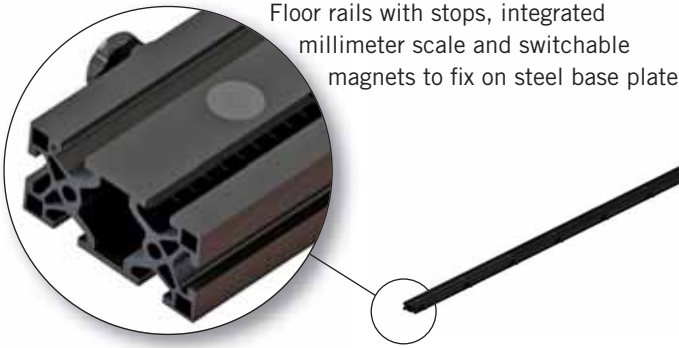


Target holder with clips mounted to telescope column/strut

Floor rail

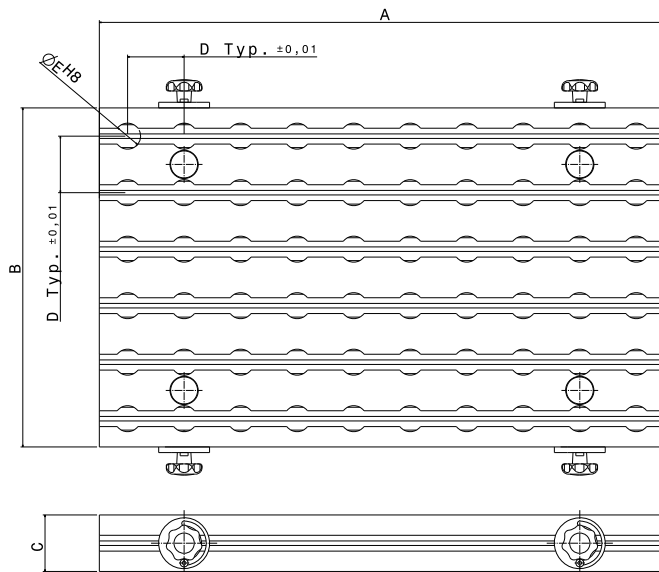
| Nr. | A | B | C | |
|----------|------|-----|----|---|
| 284670-1 | 3000 | 100 | 50 | - |

Floor rails with stops, integrated millimeter scale and switchable magnets to fix on steel base plate



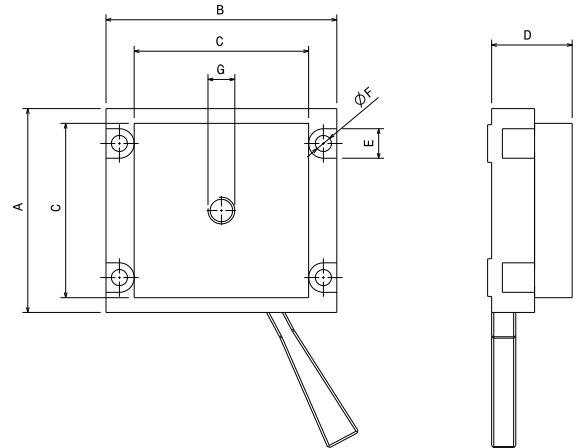
Magnetic foot plate

| Nr. | A | B | C | D | E | |
|----------|-----|-----|----|----|----|------|
| 285461-1 | 500 | 300 | 50 | 50 | 23 | 2550 |



Quick change coupling floor rail

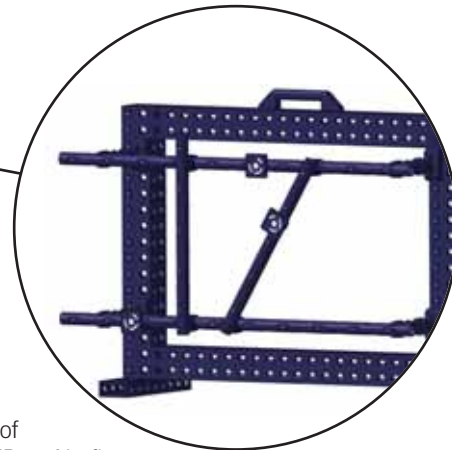
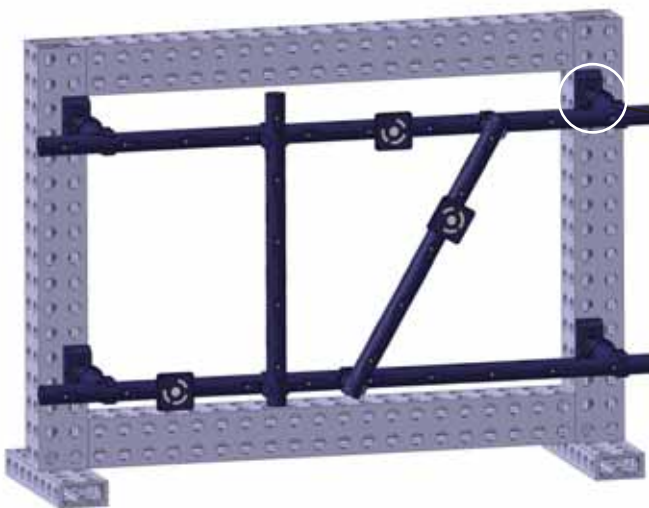
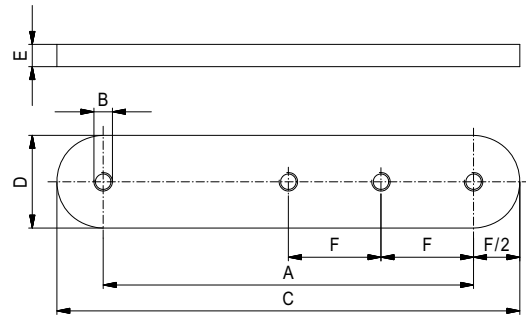
| Nr | A | B | C | D | E | F | G | |
|----------|----|----|----|----|----|---|-----|-----|
| 285473-1 | 76 | 86 | 65 | 30 | 11 | 6 | M10 | 392 |



Toe plate M10

For offset of connection of telescopic tubes on floor rails

| Nr. | A | B | C | D | E | F | |
|----------|-----|-----|-----|----|----|----|---|
| 327025-1 | 200 | M10 | 250 | 50 | 12 | 50 | - |




Connection of Fixinspect KR to ALufix using magnetic adapters

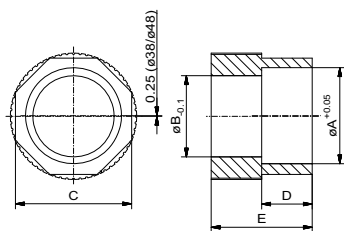
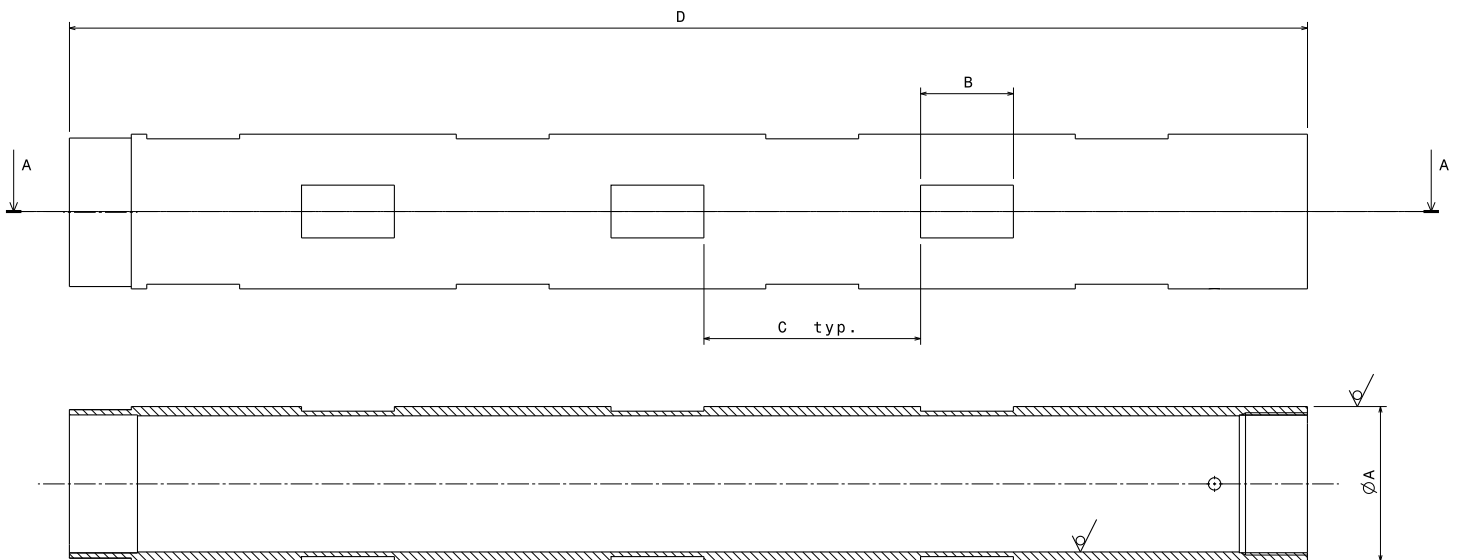


FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.


Telescopic tube



| Nr. | $\varnothing A$ | B |  |
|----------|-----------------|------|---|
| 326900-1 | 32 | 350 | - |
| 326901-1 | 32 | 550 | - |
| 326902-1 | 32 | 750 | - |
| 322697-1 | 40 | 350 | - |
| 322698-1 | 40 | 550 | - |
| 322699-1 | 40 | 750 | - |
| 322721-1 | 40 | 950 | - |
| 322722-1 | 40 | 1150 | - |
| 322694-1 | 50 | 400 | - |
| 322695-1 | 50 | 600 | - |
| 322696-1 | 50 | 800 | - |



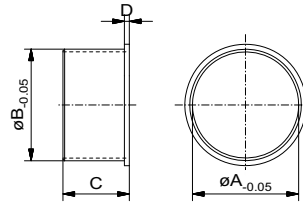
Exciter nut

| Nr. | A | B | C | D | E |  |
|--------|----|-------|------|----|----|---|
| 326904 | 38 | 32,15 | SW46 | 20 | 40 | - |
| 322703 | 48 | 40,15 | SW54 | 20 | 40 | - |

Collar bush

M10

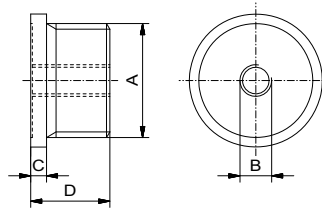
| Nr. | $\varnothing A$ | $\varnothing B$ | C | D | |
|--------|-----------------|-----------------|----|-----|---|
| 326905 | 32 | 33,6 | 20 | 1,5 | - |
| 322702 | 40 | 43,6 | 20 | 1,5 | - |



End stop

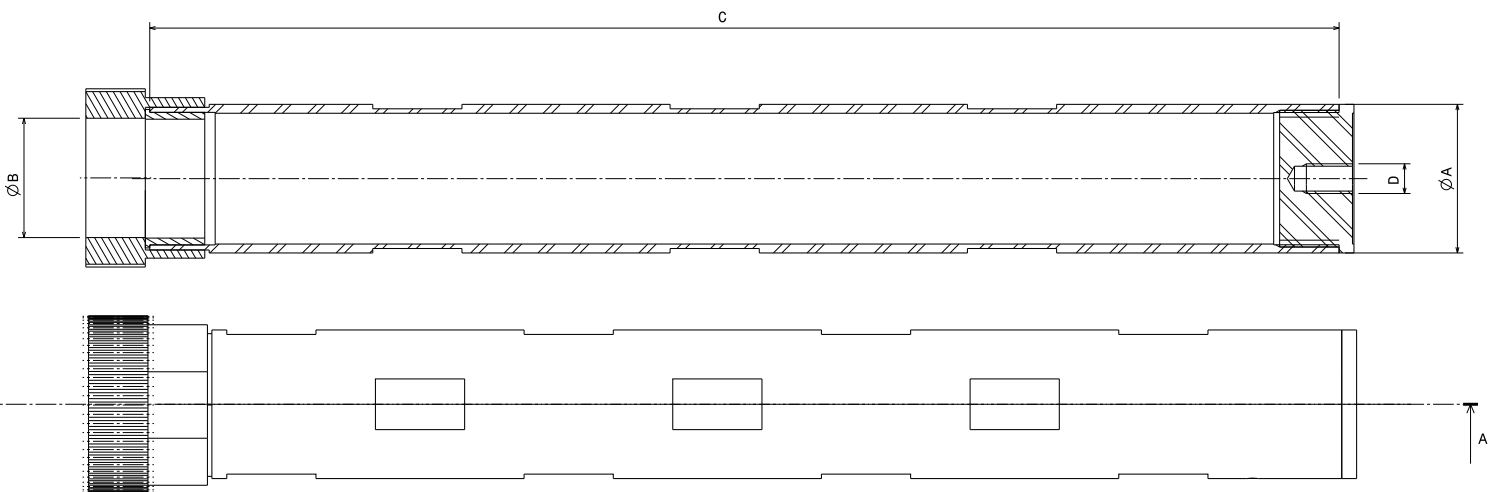
M10

| Nr. | A | B | C | D | |
|--------|---------|-----|---|----|---|
| 326903 | M30x1,5 | M10 | 5 | 25 | - |
| 322700 | M36x1,5 | M10 | 5 | 25 | |
| 322701 | M46x1,5 | M10 | 5 | 25 | |



Telescopic tube complete

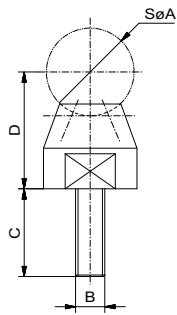
| Nr. | A | B | C | D | $\varnothing E$ | |
|----------|----|------|---|------|-----------------|---|
| 284203-1 | 40 | 350 | 5 | 21,5 | 32 | - |
| 284204-1 | 40 | 550 | 5 | 21,5 | 32 | |
| 284205-1 | 40 | 750 | 5 | 21,5 | 32 | |
| 284611-1 | 40 | 950 | 5 | 21,5 | 32 | |
| 284612-1 | 40 | 1150 | 5 | 21,5 | 32 | |
| 284200-1 | 50 | 400 | 5 | 21,5 | 40 | |
| 284201-1 | 50 | 600 | 5 | 21,5 | 40 | |
| 284202-1 | 50 | 800 | 5 | 21,5 | 40 | |



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

Ball cup

with magnets

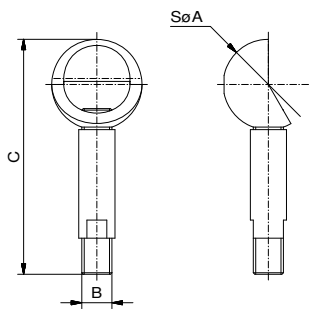


| Nr. | S ϕ A | B | C | D | |
|----------|------------|-----|----|----|---|
| 284207-1 | 30 | M10 | 30 | 40 | - |



Support ball

M10

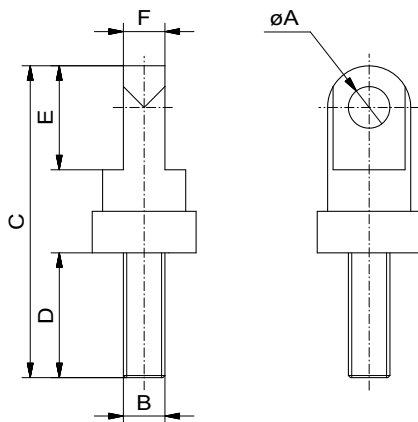


| Nr. | S ϕ A | B | C | |
|----------|------------|-----|----|---|
| 284655-1 | 30 | M10 | 78 | - |



Hinge

M10



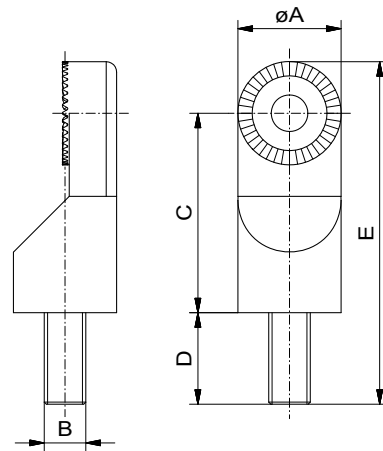
| Nr. | ϕ A | B | C | D | E | F | |
|--------|----------|-----|----|----|----|----|---|
| 284656 | 10 | M10 | 75 | 30 | 25 | 10 | - |



Face adapter Posifix

M10

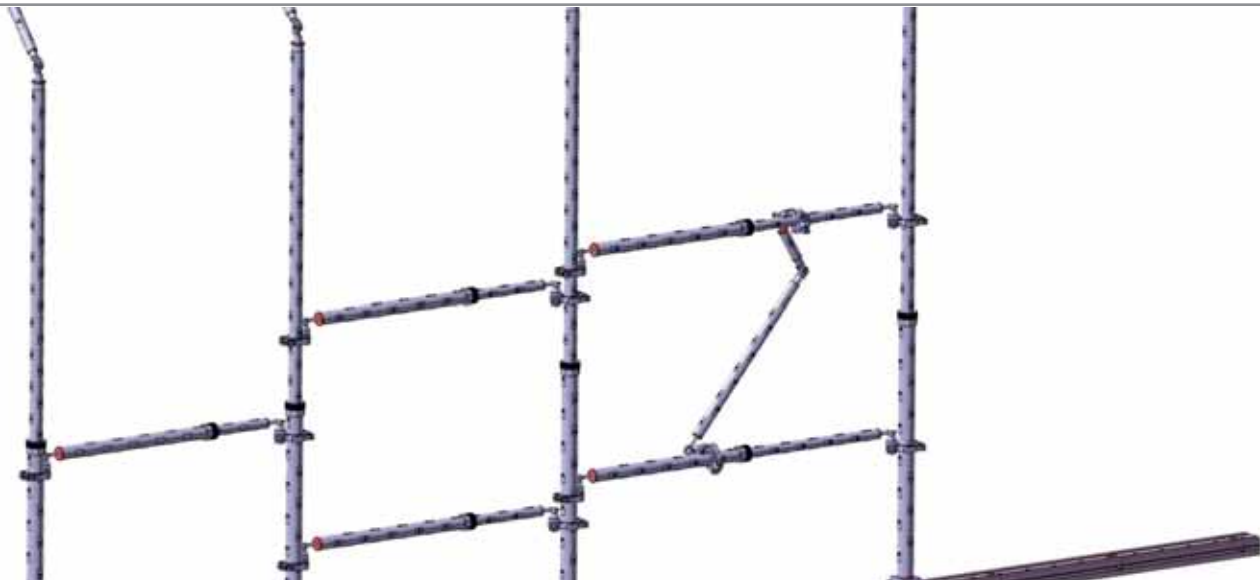
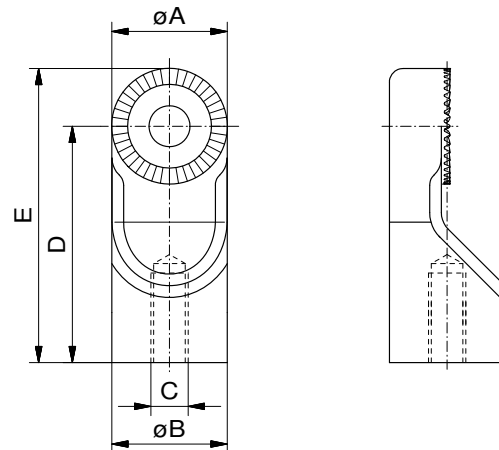
| Nr. | øA | B | C | D | E | |
|----------|------|-----|----|----|-------|---|
| 284657-1 | 24,8 | M10 | 48 | 22 | 82,4 | - |
| 284658-1 | 40,0 | M10 | 69 | 20 | 109,0 | - |



Face adapter Posifix

M10

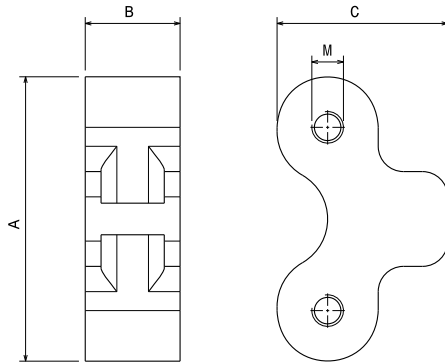
| Nr. | øA | øB | C | D | E | |
|----------|------|------|-----|----|------|---|
| 322723-1 | 24,8 | 24,8 | M10 | 48 | 62,5 | - |
| 322715-1 | 39,8 | 40,0 | M10 | 48 | 62,5 | - |




FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

Magnetic support

double

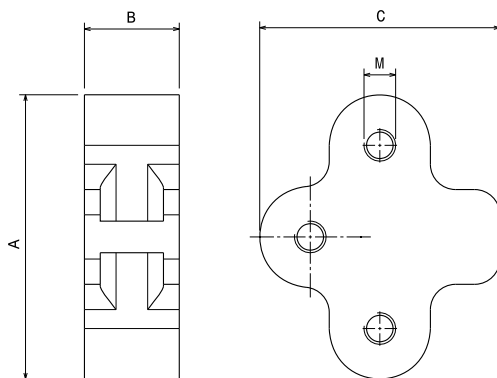



| Nr. | A | B | C | M |  |
|--------|----|----|----|----|---|
| 340371 | 90 | 30 | 54 | 10 | 88 |



Magnetic support

triple



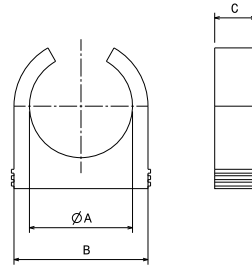
| Nr. | A | B | C | M |  |
|--------|----|----|----|----|---|
| 340372 | 90 | 30 | 76 | 10 | 125 |



Clip

for target plate

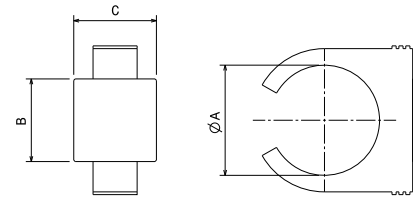
| Nr. | A | B | C | D | E | |
|-------|----|----|----|----|---|---|
| 17688 | 32 | 40 | 16 | 11 | 5 | 1 |
| 17689 | 40 | 52 | 16 | 11 | 5 | 2 |
| 17690 | 50 | 65 | 18 | 11 | 6 | 3 |



Clip

with target plate

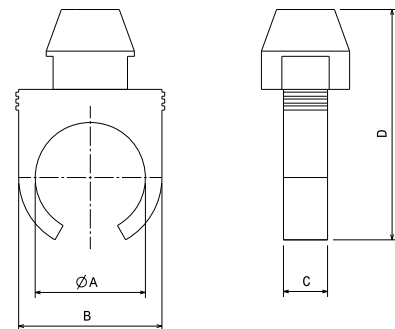
| Nr. | A | B | C | |
|--------|----|----|----|----|
| 286221 | 32 | 30 | 30 | 31 |
| 286222 | 40 | 30 | 30 | 32 |
| 286223 | 50 | 30 | 30 | 33 |



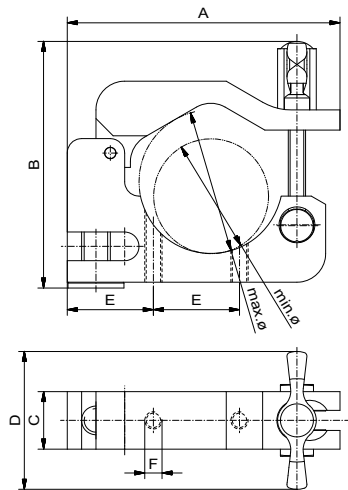
Clip

with ball cup

| Nr. | A | B | C | D | |
|--------|----|----|----|----|----|
| 286224 | 40 | 52 | 16 | 84 | 89 |



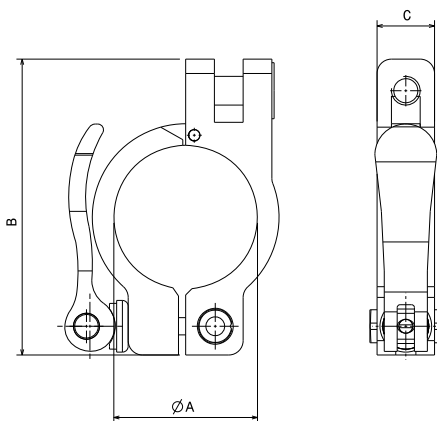
FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.



Clip

with screw clamp

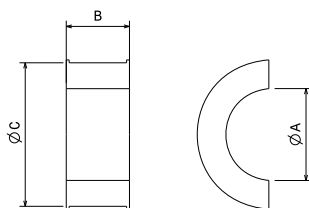
| Nr. | min.ø | max.ø | A | B | C | D | E | F | |
|--------|-------|-------|-----|----|----|----|----|----|----|
| 284206 | 40 | 50 | 95 | 86 | 20 | 48 | - | - | 90 |
| 284659 | 40 | 50 | 95- | 86 | 20 | 48 | 30 | M6 | 90 |



Clamp clip

with excenter lever

| Nr. | min.ø | max.ø | A | B | C | D | E | F | |
|--------|-------|-------|----|----|----|----|---|---|-----|
| 285460 | 40 | 50 | 95 | 86 | 20 | 48 | - | - | 120 |



Reducer cup

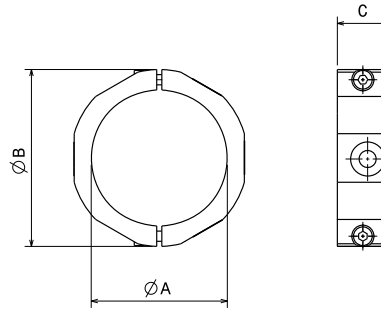
| Nr. | A | B | C | |
|--------|----|----|----|----|
| 335100 | 32 | 22 | 50 | 15 |
| 385099 | 40 | 22 | 50 | 9 |



Target ring

2-piece, with screws

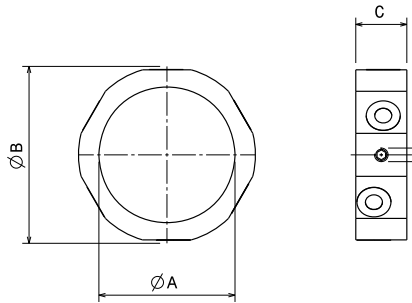
| Nr. | A | B | C | g |
|--------|----|----|----|----|
| 285471 | 32 | 44 | 15 | 26 |
| 285467 | 40 | 52 | 15 | 34 |
| 285289 | 50 | 62 | 15 | 40 |



Target ring

1-piece sleeve

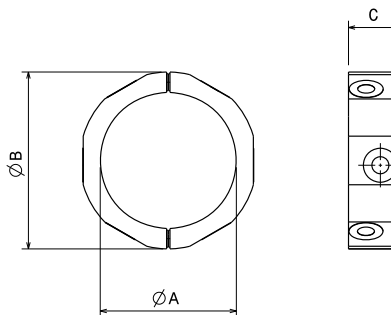
| Nr. | A | B | C | D | g |
|--------|----|----|----|----|----|
| 285472 | 32 | 44 | 15 | M4 | 26 |
| 285470 | 40 | 52 | 15 | M4 | 34 |
| 285290 | 50 | 62 | 15 | M4 | 40 |



Target ring

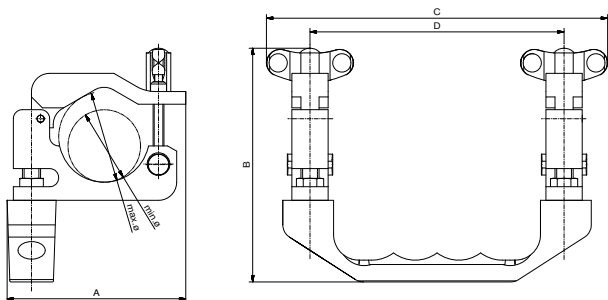
2-piece with magnet

| Nr. | A | B | C | g |
|--------|----|----|----|----|
| 286218 | 32 | 44 | 15 | 26 |
| 286219 | 40 | 52 | 15 | 34 |
| 286220 | 50 | 62 | 15 | 40 |



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

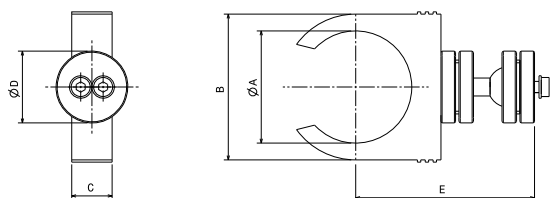
Grip for telescopic tube



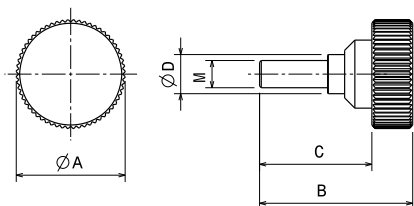
| Nr. | min.ϕ | max.ϕ | A | B | C | D | |
|--------|-------|-------|----|-----|-----|-----|-----|
| 284669 | 40 | 50 | 99 | 129 | 188 | 140 | 250 |



„Tritop“- holder



| Nr. | A | B | C | D | E | |
|--------|----|----|----|----|----|-----|
| 286217 | 50 | 65 | 18 | 32 | 80 | 150 |



Knurled thread screw

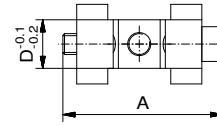
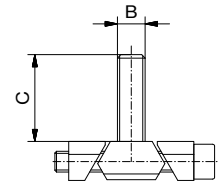
| Nr. | A | B | C | D | M | |
|----------|----|----|----|------|---|----|
| 286259-1 | 32 | 45 | 33 | 11,5 | 8 | 42 |



Connector

for floor rail

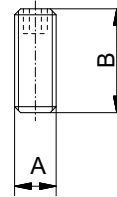
| Nr. | System | A | B | C | D | |
|----------|--------|----|-----|----|----|----|
| 280521-1 | AQ50 | 46 | M10 | 24 | 14 | 30 |
| 280634-1 | AQ40 | 41 | M8 | 25 | 14 | 20 |
| 280635-1 | AQ40 | 41 | M8 | 10 | 14 | 20 |



Threaded pin

DIN 913 M10x30

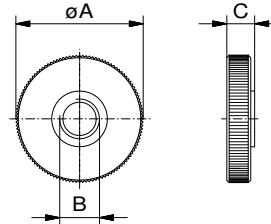
| Nr. | A | B | | |
|-------|-----|----|---|----|
| 11540 | M10 | 30 | - | 13 |



Knurled nut

M10

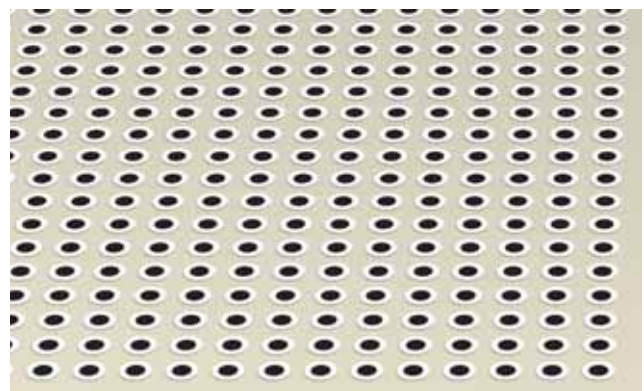
| Nr. | $\varnothing A$ | B | C | |
|----------|-----------------|-----|---|----|
| 306824-1 | 32 | M10 | 7 | 11 |



Single point target markers

white, non-coded, 3.000 pcs/pack,
medium adhesive strength

| Nr. | inner \varnothing | outer \varnothing | |
|-------|---------------------|---------------------|--|
| 19231 | 3 | 7 | |
| 19033 | 5 | 10 | |



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.



Fixinspect LT
Hidden point adapter
See pages 32+33

LT Measuring accessories for laser tracker

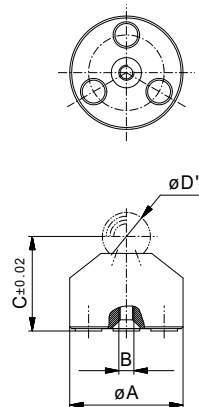
For mounting spherical reflectors

Depending on requirement LT measuring accessories can be fixed to work piece and mounted with ball shaped reflectors for measuring with laser trackers.

Magnets fix this accessory to work pieces as well as fixing the reflector in its "nest".

Fixing studs or spring loaded tips guarantee the exact position in hole axis.

Special adapters are available for part edges and corners.



LT adapter

magnetic, for use with exchangeable fixing studs

| Nr. | A | B | C | D | g |
|-------|----|----|----|------|----|
| 96426 | 30 | M4 | 25 | 0,5" | 36 |
| 96181 | 30 | M4 | 30 | 1" | 34 |
| 96182 | 30 | M4 | 36 | 1,5" | 32 |

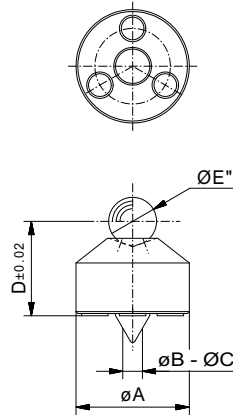


Suitable studs on pages 8-9 / D = inch

LT adapter

magnetic, self centering

| Nr | A | B | C | D | E | |
|-------|----|---|----|----|------|----|
| 96427 | 30 | 2 | 9 | 25 | 0,5" | 38 |
| 96428 | 35 | 8 | 14 | 25 | 0,5" | 78 |
| 96185 | 30 | 2 | 9 | 30 | 1,0" | 30 |
| 96186 | 35 | 8 | 14 | 30 | 1,0" | 58 |
| 96187 | 30 | 2 | 9 | 36 | 1,5" | 28 |
| 96188 | 35 | 8 | 14 | 36 | 1,5" | 36 |

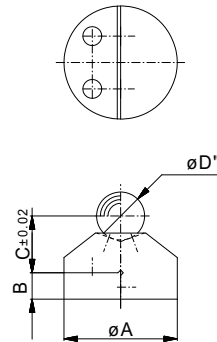


Versions for non-magnetic metals and plastics on request

LT adapter

magnetic, for mounting on edges

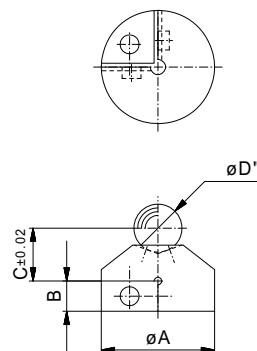
| Nr. | A | B | C | D | |
|-------|----|---|----|------|----|
| 96429 | 30 | 7 | 15 | 0,5" | 26 |
| 96190 | 30 | 7 | 20 | 1" | 22 |
| 96191 | 30 | 8 | 26 | 1,5" | 25 |



LT adapter

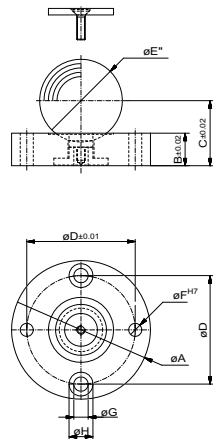
magnetic, for mounting on corners

| Nr. | A | B | C | D | |
|-------|----|---|----|------|----|
| 96430 | 30 | 8 | 14 | 0,5" | 24 |
| 96193 | 30 | 7 | 20 | 1" | 26 |
| 96194 | 30 | 8 | 26 | 1,5" | 28 |



LT adapter

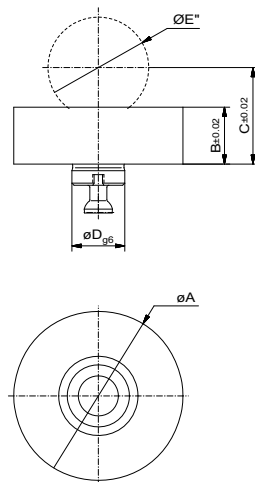
magnetic, with protective cap,
two fixation holes and two fitted holes



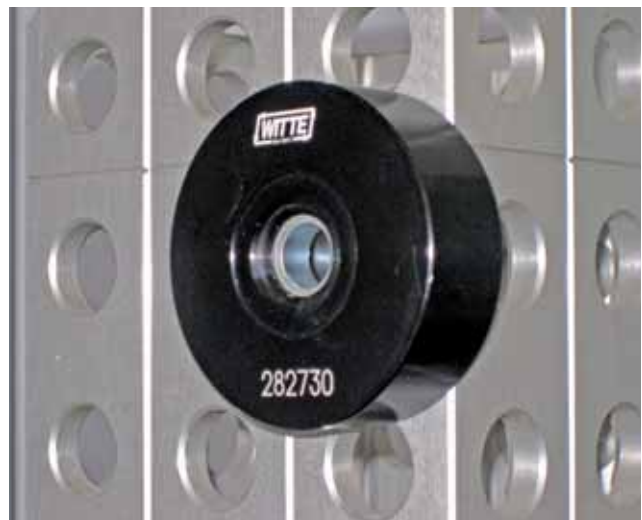
| Nr | A | B | C | D | E | F | G | H | |
|-------|----|----|----|----|------|---|-----|----|-----|
| 96196 | 64 | 15 | 30 | 50 | 1,5" | 6 | 6,6 | 11 | 144 |

LT Adapter with bolt fixing disk

For ALUFIX and ALUFIX ECO profiles



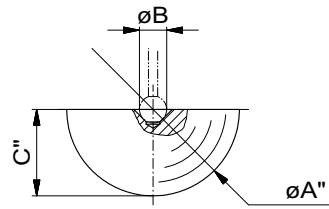
| Nr | A | B | C | D | E | AF | |
|--------|----|------|------|----|------|----|-----|
| 282730 | 64 | 21,5 | 36,5 | 20 | 1,5" | 40 | 260 |
| 282749 | 64 | 21,5 | 36,5 | 25 | 1,5" | 50 | 300 |



LT adapter steel hemisphere

For tactile comparison measuring

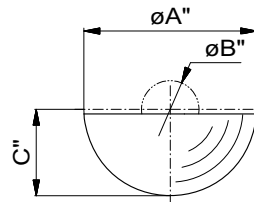
| Nr. | A | B | C | g |
|-------|------|---|-------|-----|
| 54971 | 1,5" | 6 | 0,75" | 110 |
| 54972 | 1,5" | 3 | 0,75" | 111 |
| 54973 | 0,5" | 6 | 0,25" | 4 |
| 54974 | 0,5" | 3 | 0,25" | 4 |



LT reducer adapter in steel

for small reflectors

| Nr. | A | B | C | g |
|-------|------|--------|-------|----|
| 96245 | 1,5" | 0,5" | 0,75" | 98 |
| 96246 | 1,5" | 0,875" | 0,75" | 76 |



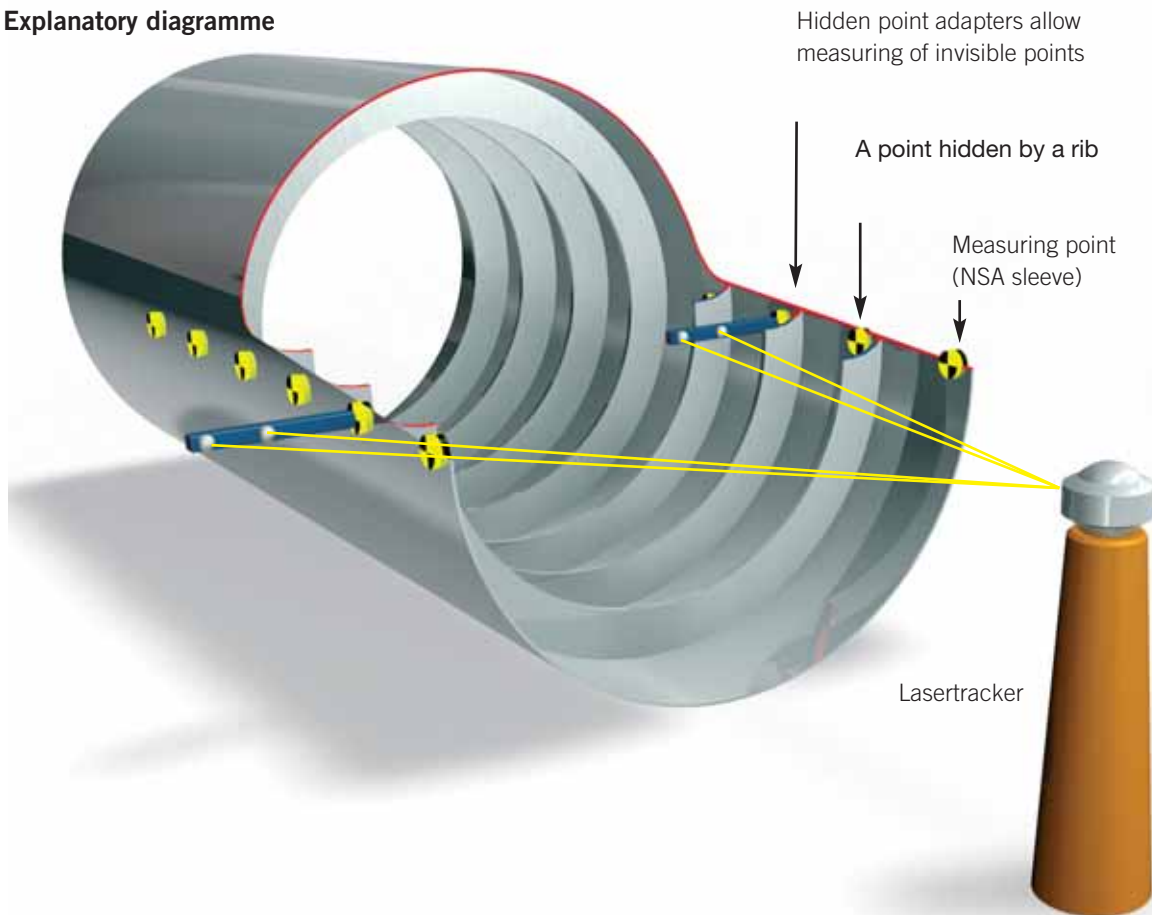
LT Adapter Hidden Point

for measuring hidden points
on inner and outer surfaces

- made of high tensile aluminium
- surface protection: anodized red
- characterized by low weight and compact design
- measuring is done by laser trackers via 0,5" reflector balls, which are mounted on integrated magnets
- adapters are fixed using hydraulic clamping pin
- comes as a standard with two or four ball seats
- other dimensions and special connections to work pieces are available on request



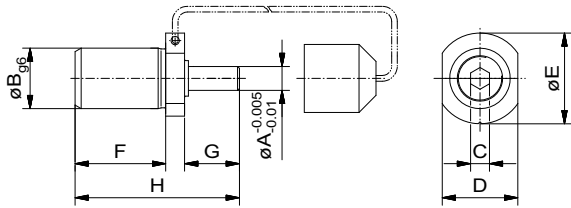
Explanatory diagramme



Hydraulic clamping pin

to fix Hiddenpoint adapters on a
NSA 9501-100 sleeve96669

| Nr | A | B | C | D | E | F | G | H | |
|-------|------|----|-----|------|----|----|------|------|----|
| 96669 | 6,32 | 16 | SW5 | SW20 | 24 | 24 | 14,5 | 43,5 | 45 |



FIXINSPECT measuring accessories are available anodized in different colours. Red is standard, other colours on request.

Reflector balls shown are exemplary

FT Adapter

with suction cap

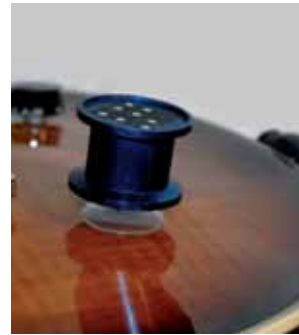
In order to avoid complex glueing and removing of retro reflective tapes, we offer a range of Fixinspect FT accessories, which complements our already well-known range of Fixinspect. These targets mounted with tapes, were conceived particularly for optical measuring purposes and can be easily fixed on workpieces and removed again as required.

For positioning on smooth as well as curved surfaces the adapters come with a suction cup and three-point contact. The spring loaded suction cup with bayonet lock in extended mode enables careful handling of workpiece. After pressing down lightly and turning 30° to the right the target is accurately secured ensuring defined height of tapes in relation to workpiece surface.

The pictures on the right show how to use the targets with suction cup.



 More Info on
FIXINSPECT® FT
on request



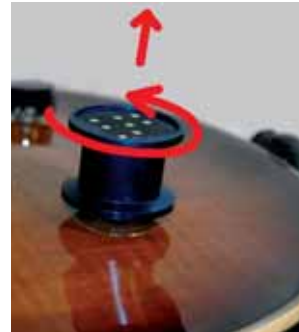
1 Put adapter onto required position on workpiece



2 Press lightly to activate suction cup



3 Turn 30° to the right to lock into position




4 To release after measuring pull adapter up lightly and turn 30° to the left



5 Access to sucker is free and adapter is easily removed to use again for new part



 **FIXINSPECT** measuring accessories are available anodized in different colours. Red is standard, other colours on request.





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