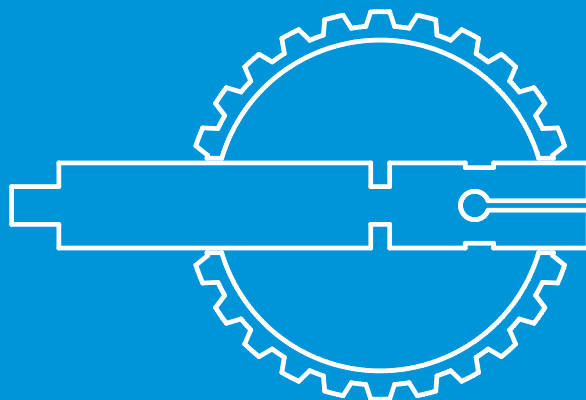


Fabrique d'outillage pour le décolletage  
Werkzeugfabrik für Drehteile  
Tool manufacture for precision turning



FABRICANT

HERSTELLER

MANUFACTURER

**ANDRÉ FREI & FILS SA** Rue des Gorges 26 CH 2738 COURT

Tél. ++41(0)32 497 71 30 Fax. ++41(0)32 497 71 35

[www.frei-andre.ch](http://www.frei-andre.ch)

**Pièces de rechange TORNOS**  
**Ersatzteile TORNOS**  
**Spare parts TORNOS**



**Pièces pour Ravitailleurs / Appareils TORNOS**  
**Teile für Stangenlader / Apparate TORNOS**  
**Parts for barfeeders / Attachments TORNOS**



**Pièces pour Tours Multi-Broches TORNOS**  
**Teile für Mehrspindler TORNOS**  
**Parts for multi-spindle bar machines TORNOS**



**Pièces pour BECHLER**  
**Ersatzteile für BECHLER**  
**Spare parts for BECHLER**



**Pièces pour PETERMANN**  
**Ersatzteile für PETERMANN**  
**Spare parts for PETERMANN**



**Pièces pour BECHET**  
**Ersatzteile für BECHET**  
**Spare parts for BECHET**



**Pinces et Embouts pour LNS, TRAUB, FMS, IEMCA, CUCCHI**  
**Zangen und Endstücke für LNS, TRAUB, FMS, IEMCA, CUCCHI**  
**Collets and end-pieces for LNS, TRAUB, FMS, IEMCA, CUCCHI**

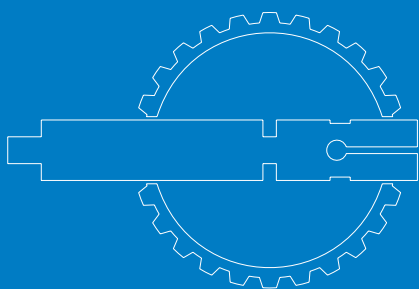


**Porte-Outils à tronçonner**  
**Abstechthal-Halter**  
**Cut-off tool-holder**

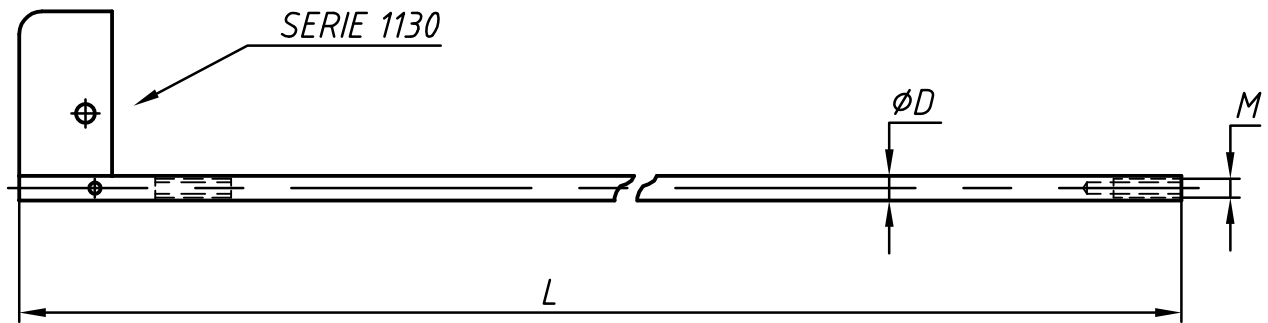


**Porte-Outils et DIVERS**  
**Werkzeughalter und VERSCHIEDENES**  
**Tool-holder and MISCELLANEOUS**



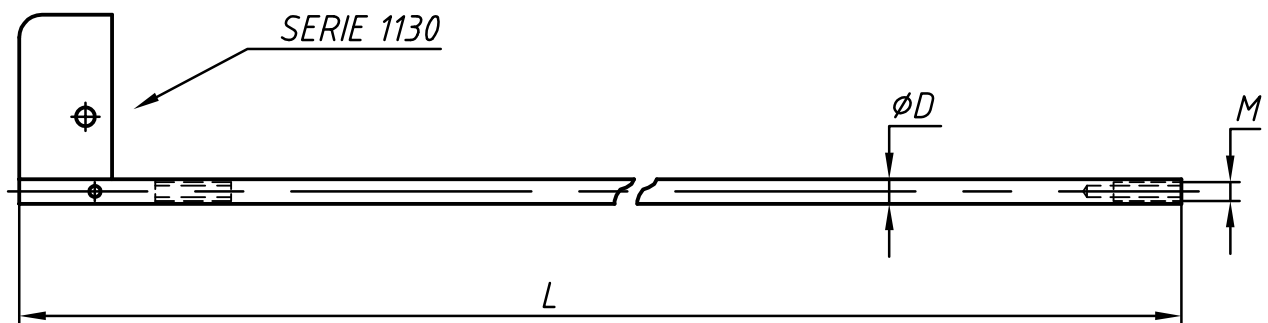


ANDRÉ FREI & FILS SA

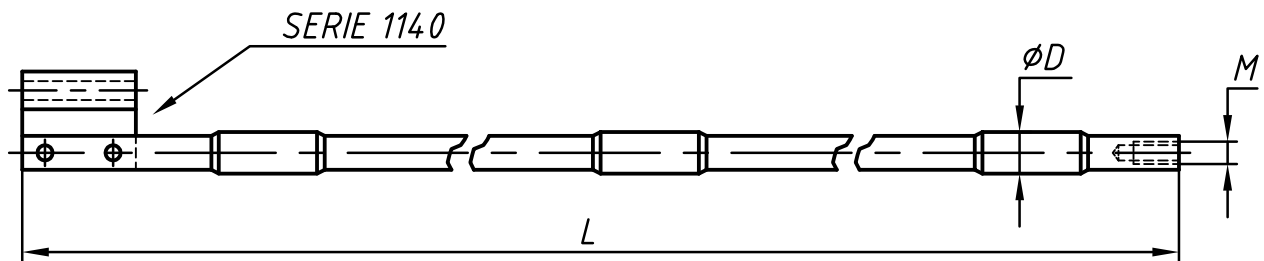


No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\varnothing D$ mm	L mm	M mm
1100.0000	M-4	4,50	430	M3,5
1101.0000	M-4 / T-4	4,50	510	M3,5
1103.0000	M-7	6,50	565	M5
1104.0000	MS-7	6,50	665	M5
1105.0000	MS-7	10	882	M6
1106.0000	R-10	10	755	M6

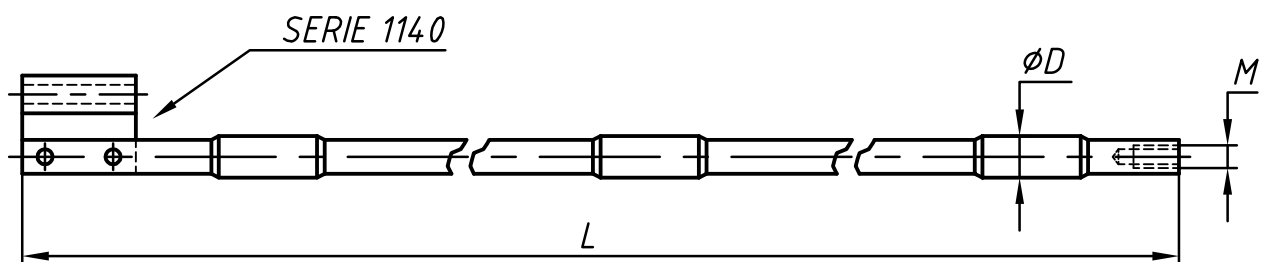
POUSSETTES SIMPLES POUR TOURS AUTOMATIQUES TORNOS AVEC ARRETAGE  
 EINFACHE STOSS-STANGEN FUER LANGDREHAUTOMATEN TORNOS MIT STOPPVORRICHTUNG  
 SIMPLE PUSHRODS FOR AUTOMATICS TORNOS WITH STOPPING



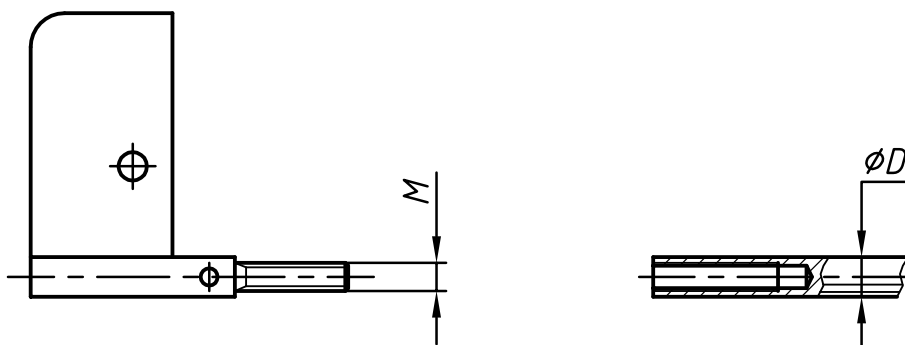
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\varnothing D$ mm	L mm	M mm
1113.0000	R-10	10	825	M6



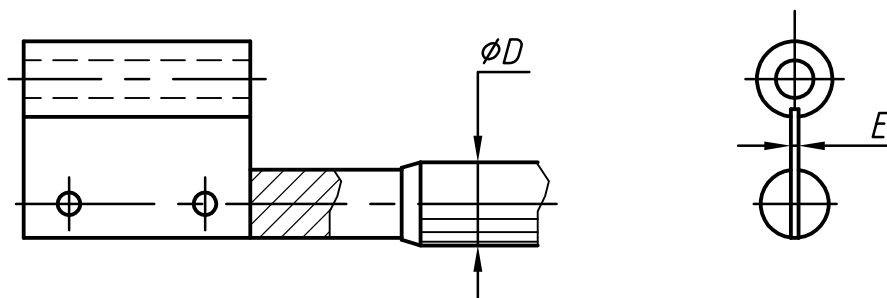
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø D mm	L mm	M mm
1114.0000	R-10	10	540	M6
1115.0000	R-16	16	695	M10
1116.0000	RR-20	20	600	M10



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø D mm	L mm	M mm
1120.0000	R-10	10	710	M6



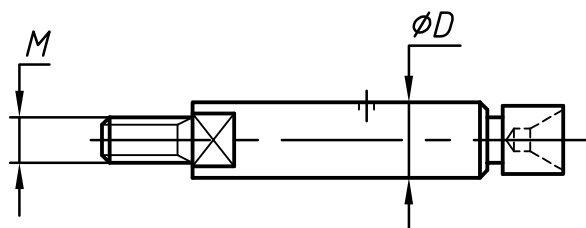
No de cde Bestell Nr Order Nr	Poussette Stoss-stange Pushrods	Ø D mm	M mm
1130.0000		7,50	M5 x 0,5
1131.0000		10	M8 x 0,5



No de cde Bestell Nr Order Nr	Poussette Stoss-stange Pushrods	Ø D mm	E mm
1143.0000		10	1,5
1144.0000		16	2
1145.0000		20	2

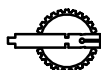
EMBOUTS TOURNANTS SIMPLES POUR POUSSE-BARRES  
 EINFACHE DREHENDE ENDSTUECKE FUER STOSS-STANGEN  
 SIMPLE REVOLVING END-PIECES FOR PUSHRODS

SERIE 1150



No de cde Bestell Nr Order Nr	Ø D mm	M mm
1150.0000	4,50	M 3,5
1151.0000	7	M 5
1152.0000	10	M 6
1153.0000	12	M 6
1154.0000	14	M 8
1155.0000	16	M 10
1156.0000	20	M 10
1157.0000	25	M 12

Autres dimensions sur demande  
 Weitere Masse auf verlangen  
 Other sizes on request

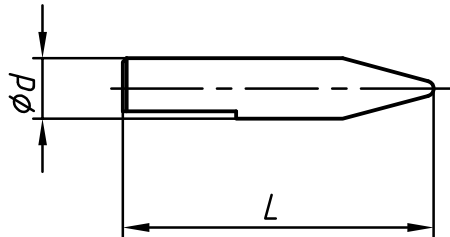


BECS METAL DUR TORNOS  
HARTMETALL-NOCKEN FUER TORNOS  
TUNGSTEN CARBIDE TOES FOR TORNOS

04.10

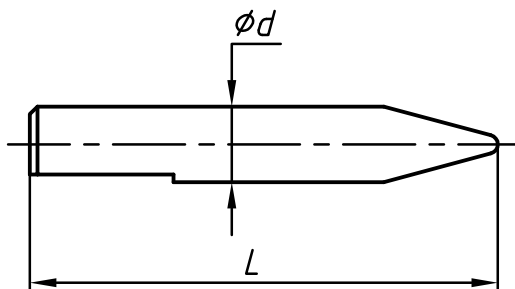
SERIE 1190  
1200

Becs pour outils verticaux  
Nocken für senkrechte Werkzeuge  
Toes for vertical tools



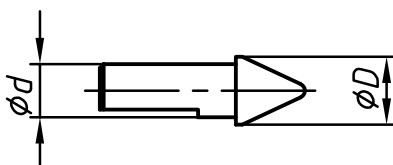
No de cde Bestell Nr Order Nr	$\phi d$ mm	L mm
1191.0000	8	45
1193.0000	9	42
1197.0000	10	40
1199.0000	12	49
1201.0000	13	60

Becs pour poupée  
Spindelstock-Nocken  
Headstock toes

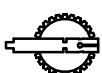


No de cde Bestell Nr Order Nr	$\phi d$ mm	L mm
1202.0000	10	62
1204.0000	10	70
1206.0000	12	70
1208.0000	14	76
1210.0000	16	83

Becs pour bascule  
Wippen-Nocken  
Rocker toes

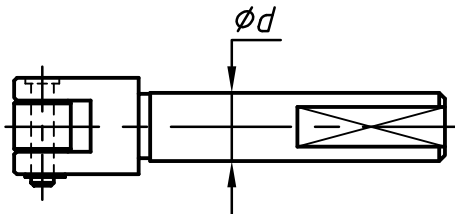


No de cde Bestell Nr Order Nr	$\phi d$ mm	$\phi D$ mm
1217.0000	7	9
1219.0000	7	10
1221.0000	7	11
1223.0000	8	10
1225.0000	10	12

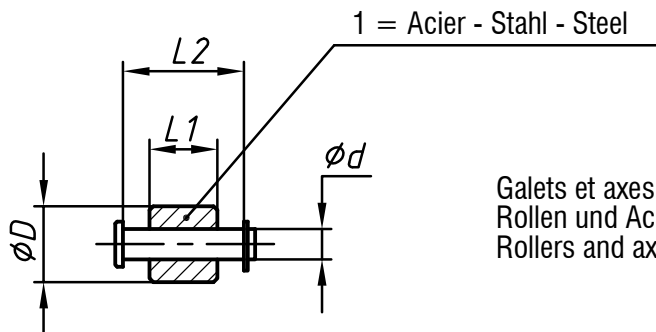




Becs à galet pour poupées  
 Rollen-Nocken für Spindelstock  
 Roller-toes for headstock



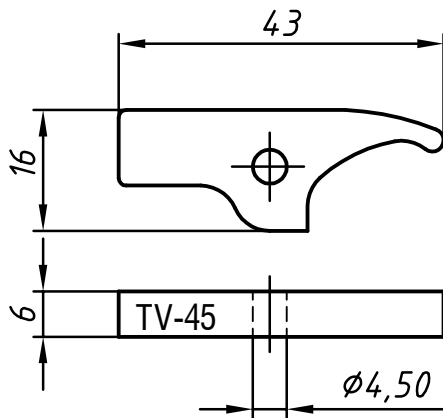
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\phi d$ mm
1230.0000	M-7	12
1232.0000	R-10	14
1234.0000	R-16 M-15	16



Galets et axes pour becs poupées  
 Rollen und Achsen für Spindel-Nocken  
 Rollers and axles for headstock toes

SERIE 1230

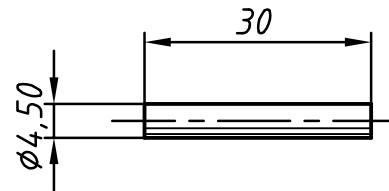
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Matière Material Material	$\phi D$ mm	$\phi d$ mm	L1 mm	L2 mm
1240.0000	M-7	1	10	4	9	14,50
1242.0000	R-10	1	10	4	9	16,20
1244.0000	R-16 M-15	1	14	6	12	19,50



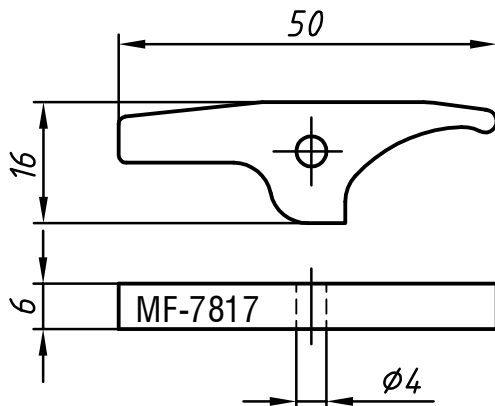
T-4

No de cde Bestell Nr Order Nr
1250.0000

1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide

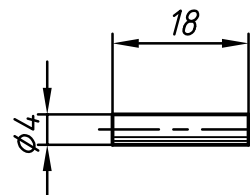


No de cde Bestell Nr Order Nr	Matière Material Material
1250.0001	1
1250.0002	2

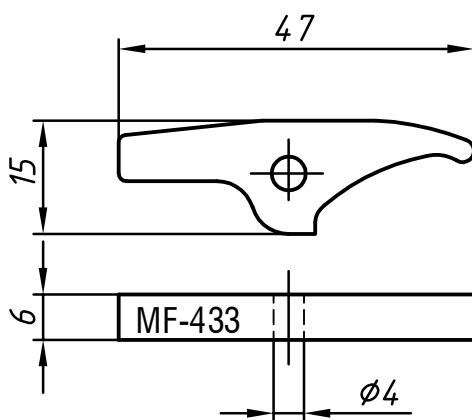


M-4

No de cde Bestell Nr Order Nr
1251.0000

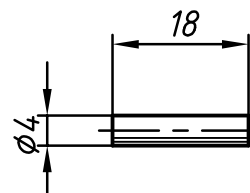


No de cde Bestell Nr Order Nr	Matière Material Material
1251.0001	1
1251.0002	2

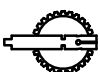


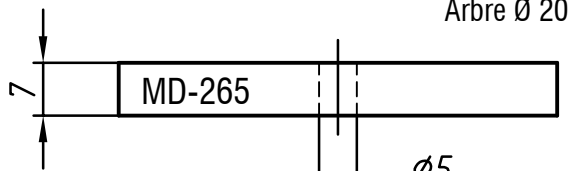
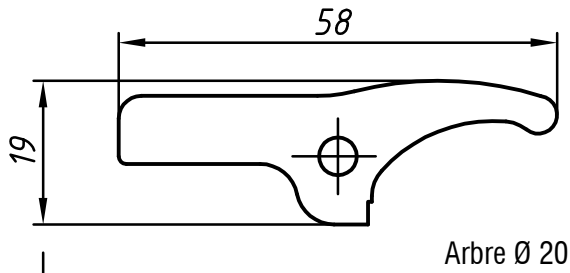
M-4

No de cde Bestell Nr Order Nr
1252.0000



No de cde Bestell Nr Order Nr	Matière Material Material
1251.0001	1
1251.0002	2

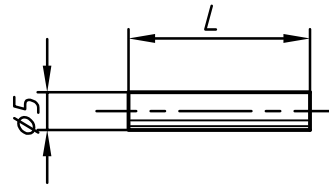




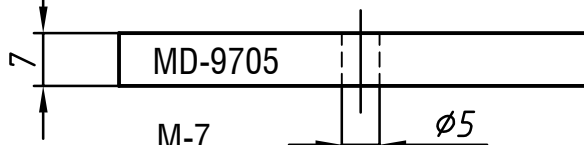
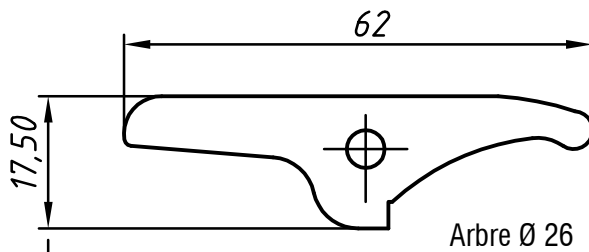
M-7

No de cde Bestell Nr Order Nr
1253.0000

- 1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide

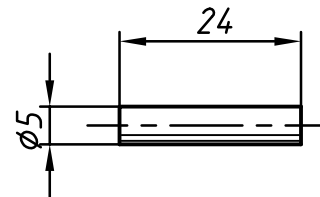


No de cde Bestell Nr Order Nr	Matière Material Material	L mm
1253.0001	1	24
1253.0002	2	24
1253.0003	1	51
1253.0004	2	51

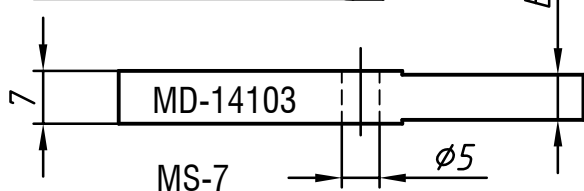
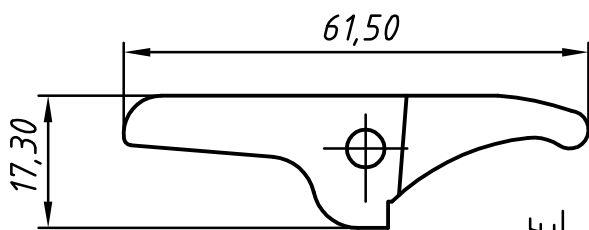


M-7

No de cde Bestell Nr Order Nr
1254.0000

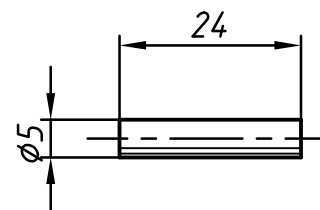


No de cde Bestell Nr Order Nr	Matière Material Material
1253.0001	1
1253.0002	2

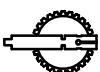


MS-7

No de cde Bestell Nr Order Nr	E mm
1255.0000	7
1255.0003	6



No de cde Bestell Nr Order Nr	Matière Material Material	L mm
1253.0001	1	24
1253.0002	2	24

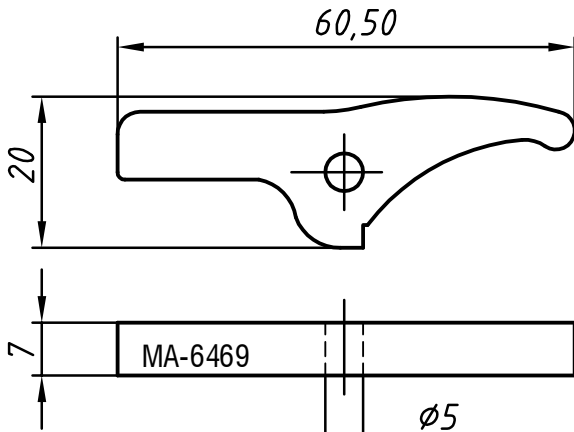


CHIENS DE SERRAGE TOROS  
 SPANNKNAGGEN TOROS  
 CLAMPING TOGGLES TOROS

04.10

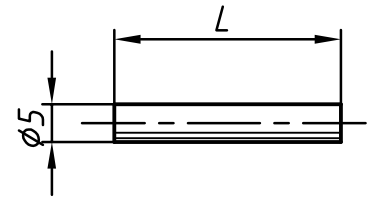
SERIE 1250

1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide

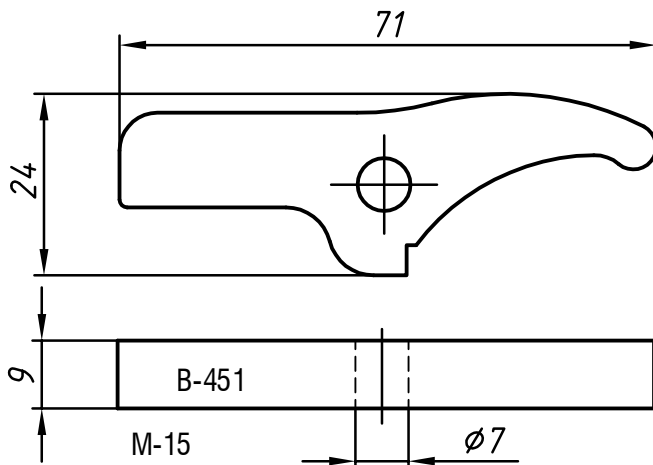


M-10

No de cde Bestell Nr Order Nr
1256.0000

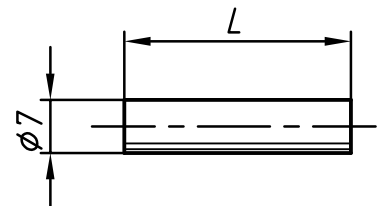


No de cde Bestell Nr Order Nr	Matière Material Material	L mm
1253.0001	1	24
1253.0002	2	24
1253.0003	1	51
1253.0004	2	51

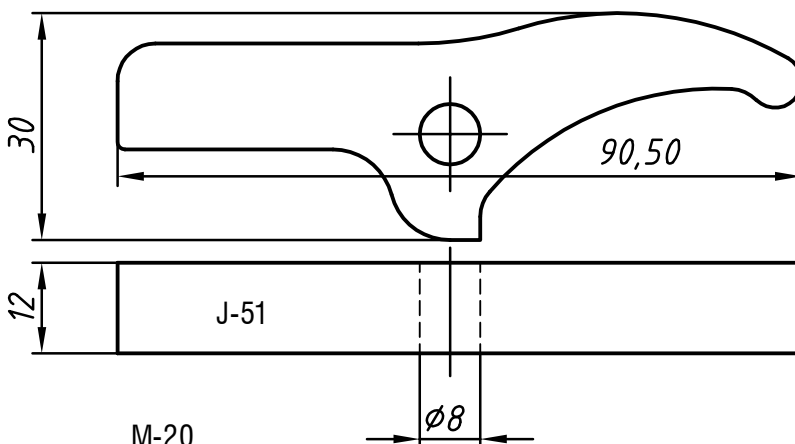


M-15

No de cde Bestell Nr Order Nr
1257.0000

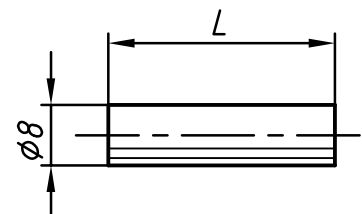


No de cde Bestell Nr Order Nr	Matière Material Material	L mm
1257.0001	1	30
1257.0002	2	30
1257.0003	1	50
1257.0004	2	50

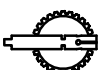


M-20

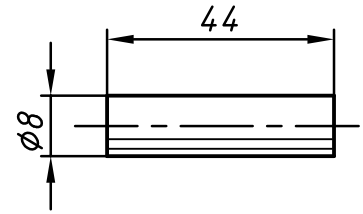
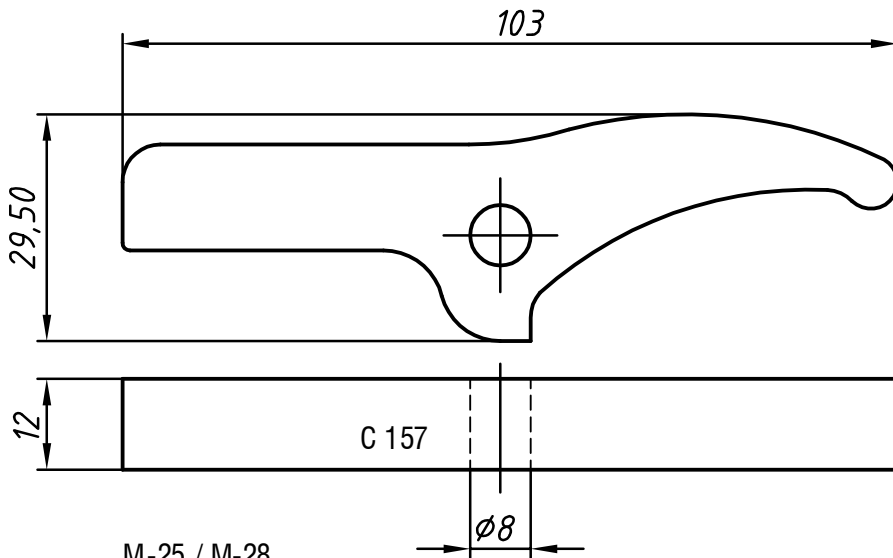
No de cde Bestell Nr Order Nr
1258.0000



No de cde Bestell Nr Order Nr	Matière Material Material	L mm
1258.0001	1	44
1258.0002	2	44
1258.0003	1	50
1258.0004	2	50



1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide



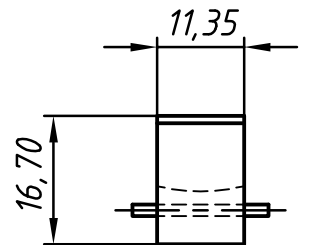
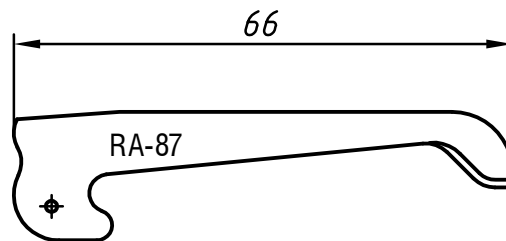
No de cde Bestell Nr Order Nr	Matière Material Material
1258.0001	1
1258.0002	2

M-25 / M-28

No de cde Bestell Nr Order Nr
1259.0000

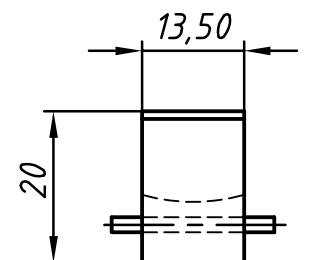
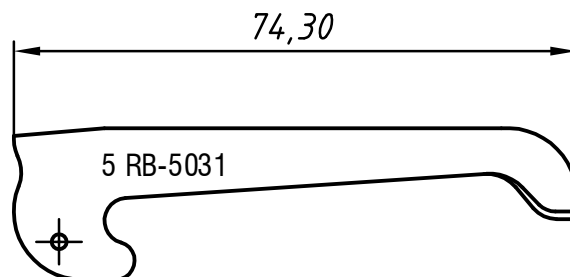
R-10

No de cde Bestell Nr Order Nr
1260.0000



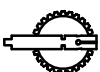
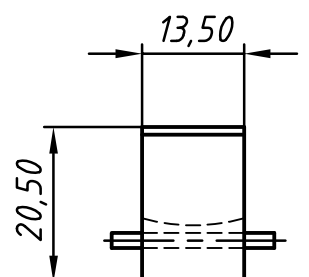
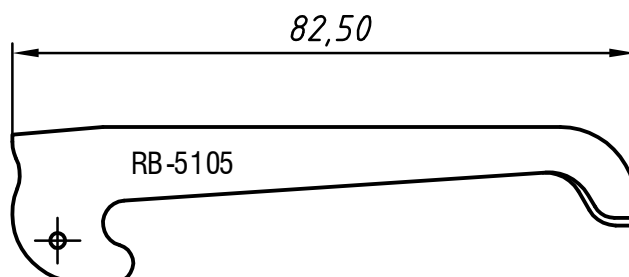
R-16

No de cde Bestell Nr Order Nr
1261.0000

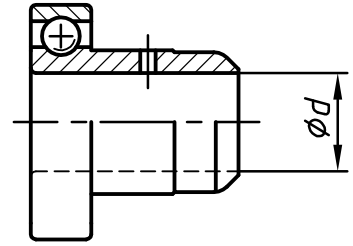


RR-20

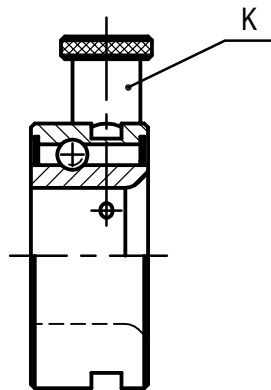
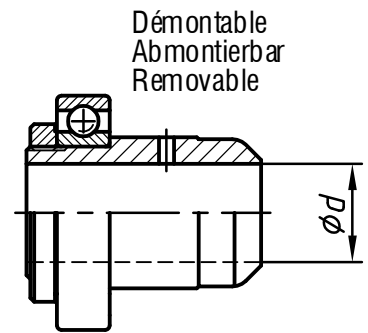
No de cde Bestell Nr Order Nr
1262.0000



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø d mm
1270.0000	M-4	18
1271.0000	M-7	20
1272.0000	M-7 / MS-7	26



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø d mm
1274.0000	M-7	20
1275.0000	M-7 / MS-7	26



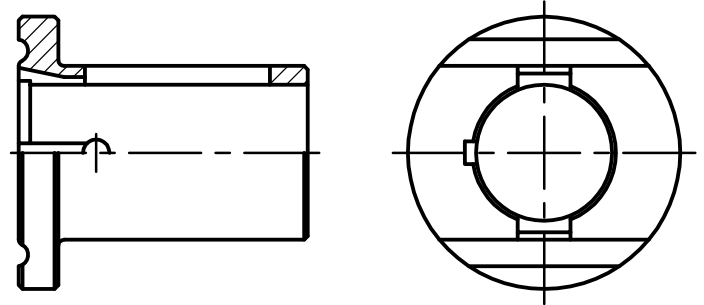
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Graissage à vie Dauergeschmiert Lubricated for lifetime	K
1277.0000	R-10		X
1278.0000	R-10	X	
1279.0000	R-16		X
1280.0000	RR-20		X

DOUILLES DES CHIENS TORNOS  
 TORNOS SPANNKNA GGENHUELSEN  
 TORNOS TOGGLE SLEEVES

04.10

SERIE 1280  
 1290

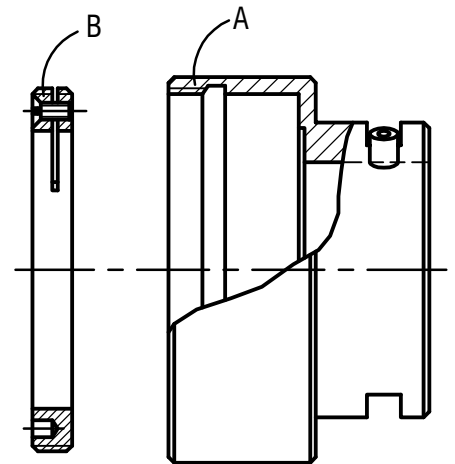
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1281.0000	R-10
1282.0000	R-16
1283.0000	RR-20



CAPSULES DU MANCHON DE SERRAGE TORNOS  
 KAPPEN DER SPANNMUFFE TORNOS  
 CAPS OF CLAMPING BOBBIN TORNOS

A+B

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Manchon Spannmuffe Bobbin	Ø d mm
1284.0000	M-4		18
1285.0000	M-7		20
1286.0000	MS-7		26

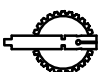


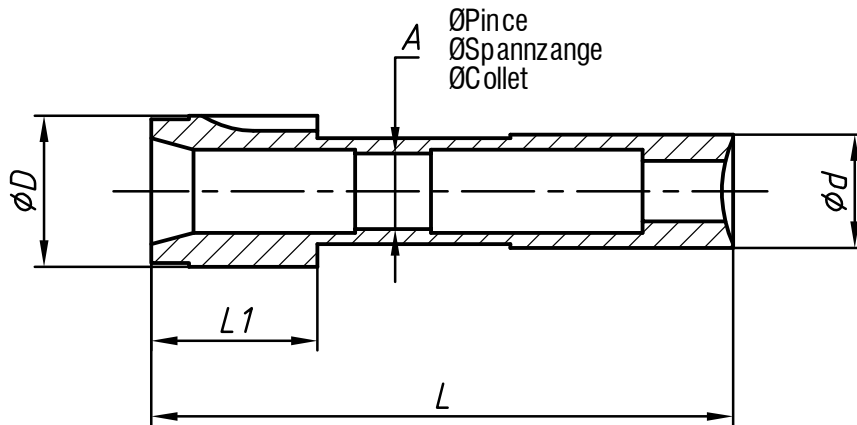
A

B

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Manchon Spannmuffe Bobbin	Ø d mm
1287.0000	M-4		18
1288.0000	M-7		20

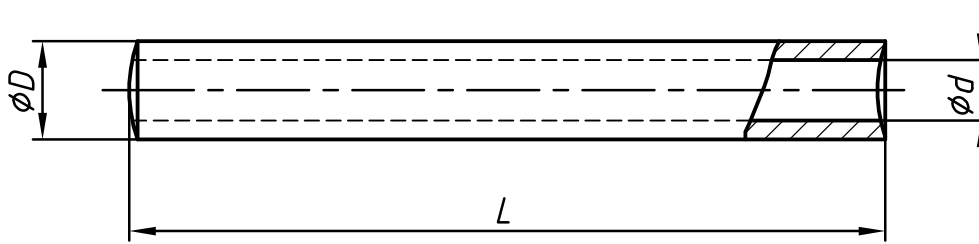
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1290.0000	M-4
1291.0000	M-7





No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	A mm	$\varnothing d$ mm	$\varnothing D$ mm	L1 mm	L mm
1311.0000	M-4 / TV-45	8	12	15	16	66
1312.0000	M-7	10	14	19	22	77
1313.0000	M-7	10	15	20	22	77
1314.0000	MS-7	10	18	23	22	88
1315.0000	MS-7/R-7	13	18	23	22	88
1316.0000	R-10	15	22	26	22	90
1317.0000	R-10	16	22	26	22	90

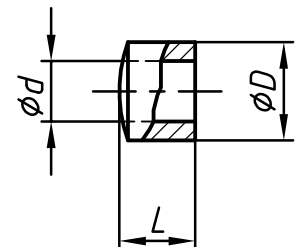




No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\phi D$ mm	$\phi d$ mm	L mm
1320.0000	T-4	11,20	6	43,50
1321.0000	M-4	11,20	6	86,20
1322.0000	M-7	13,10	8	100
1323.0000	M-7 renf.	14,20	8	103,80
1324.0000	M-7 renf.	16,80	11	88
1325.0000	MS-7	16,80	8	102,80
1326.0000	MS-7	16,80	11	102,80

TALONS DE LA DOUILLE TORNOS  
 STUETZGELENKE DER TORNOS HUELSE  
 SUPPORT LINKS OF TORNOS SLEEVE

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\phi D$ mm	$\phi d$ mm	L mm
1327.0000	M-4/T-4	11,40	6	9
1329.0000	M-7 $\phi$ 20	13,40	8	9,20
1330.0000	M-7 $\phi$ 26	14,40	8	9,20
1331.0000	M-7	16,80	11	9,50
1332.0000	M-7 Arrêtage	17,40	11	12

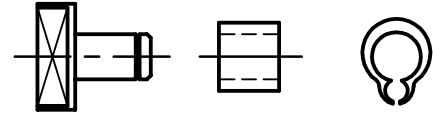


RESSORTS DE LA PINCE TORNOS  
 SPANNZANGENFEDERN TORNOS  
 COLLET SPRINGS TORNOS

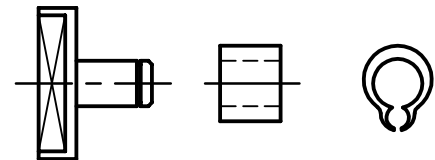
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\phi D$ mm
1333.0000	M-4/T-4	8
1334.0000	M-7	10
1335.0000	M-7 renf. / MS-7	13
1336.0000	R-10	15



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1342.0000	M-4
1343.0000	M-7 Ø 14

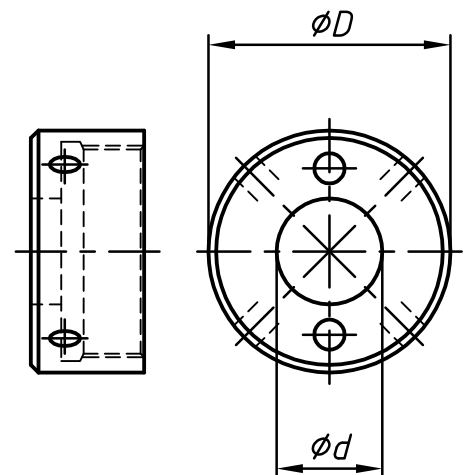


No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1344.0000	T-4
1345.0000	M-7 Ø 18
1346.0000	MS-7
1347.0000	R-10

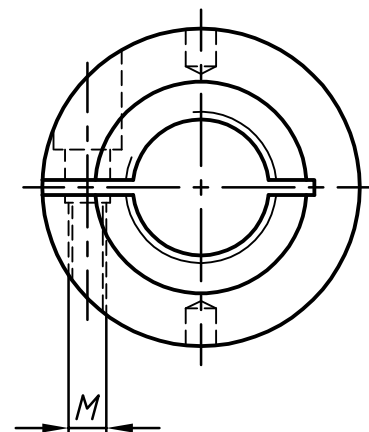


ECROUS DE NEZ DE L'ARBRE  
NASEN-MUTTER DER WELLE  
NOSE-NUTS OF SHAFT

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø d mm	Ø D mm
1350.0000	M-4	9	25
1351.0000	M-7	11	30
1353.0000	M-7 / MS-7	11	32
1357.0000	R-10	16	37

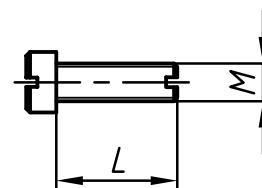


No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M
1360.0000	M-4	M4 x 0,75
1361.0000	M-7 M20 x 1	M5 x 0,75
1362.0000	M-7 M26 x 1,25	M5 x 0,75
1363.0000	MS-7 M26 x 1	M5 x 0,75
1364.0000	R-10	M5 x 0,75

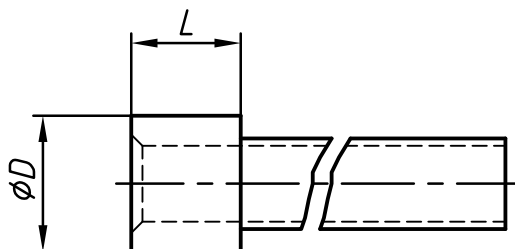


Vis pour écrou de réglage  
 Schraube für Regelmutter  
 Screw for setting nut

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M x L mm
1542.0000	M-4	M4 x 0,75 x L 16
1544.0000	M-7	M5 x 0,75 x L 17

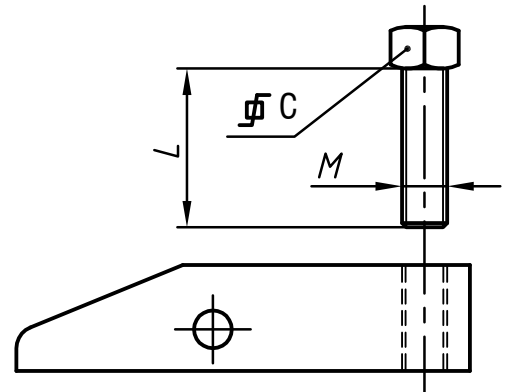


TALONS DE LA DOUILLE  
 STUETZEN DER HUELSE  
 HEELS OF SLEEVE



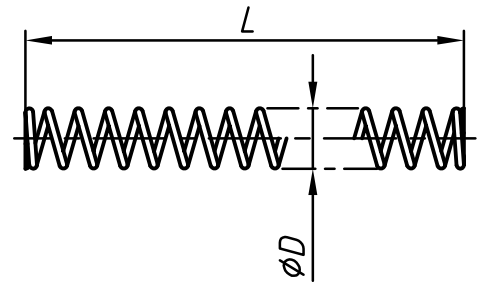
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	ø D mm	L mm
1365.0000	R-7	17,80	14,50
1366.0000	R-10	21,50	19
1367.0000	R-16	27,80	27
1368.0000	RR-20	32,80	26

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\varnothing C$ mm	M x L mm
1380.0000	M-4 T-4	5,50	M5 x 15
1381.0000	M-7 / R-7	6,50	M6 x 21
1383.0000	R-10	6,50	M6 x 21
1384.0000	R-16	7,50	M7 x 25



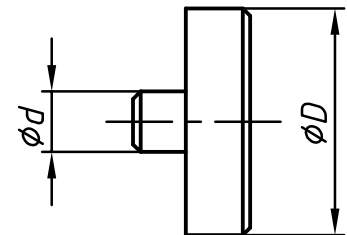
RESSORTS DES OUTILS VERTICAUX  
FEDERN DER SENKRECHTEN WERKZEUGE  
SPRINGS OF VERTICAL TOOLS

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\varnothing D$ mm	L mm
1387.0000	M-4	6,50	110
1388.0000	M-7 R-10	8,75	130



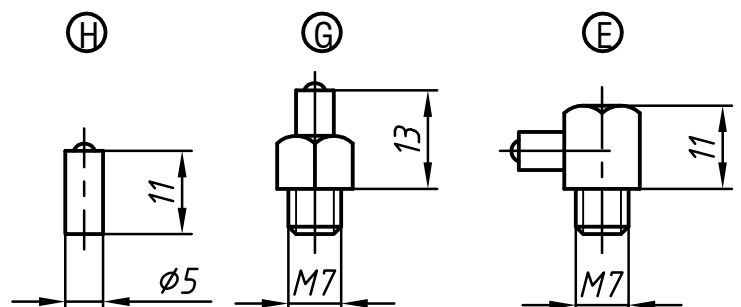
PASTILLES METAL DUR POUR OUTILS VERTICAUX  
PLAETTCHEN AUS HARTMETALL FUER SENKRECHTE WERKZEUGE  
TUNGSTEN CARBIDE PADS FOR VERTICAL TOOLS

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	$\varnothing D$ mm	$\varnothing d$ mm
1390.0000	M-4	18	5
1391.0000	M-7 MS-7 R-10	26	6
1392.0000	R-16 RR-20	30	8
1393.0000	M-15 M-20	30	9

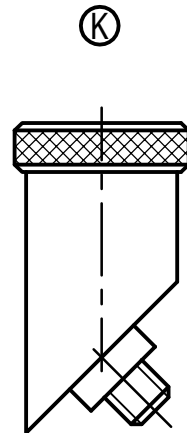
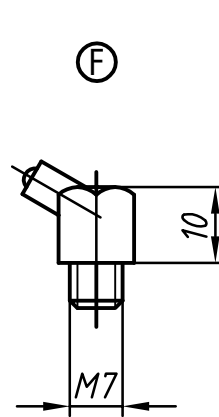


HUILEURS ET GRAISSEURS SUR MACHINES TORNOS  
OELER UND SCHMIERNIPPEL AUF TORNOS MASCHINEN  
OILERS AND LUBRICATORS ON TORNOS MACHINES

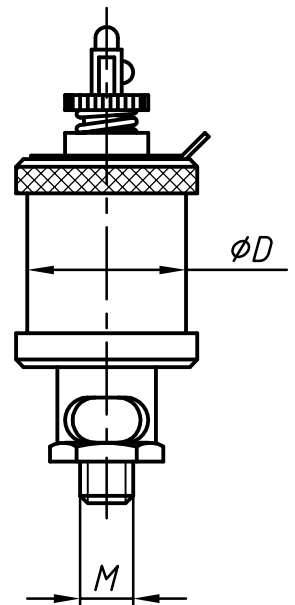
No de cde Bestell Nr Order Nr	Graisseurs type Oeler Typ Oiler type
1394.0000	H
1395.0000	G
1396.0000	E

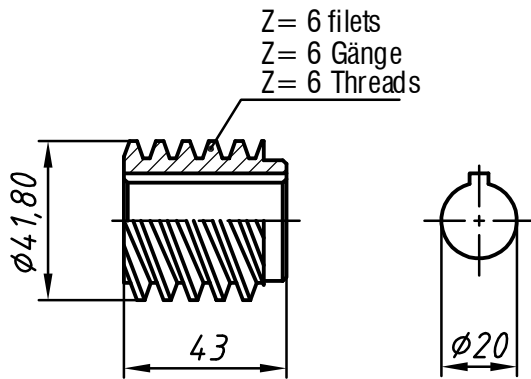


No de cde Bestell Nr Order Nr	Graisseurs type Oeler Typ Oiler type
1400.0000	F
1401.0000	K



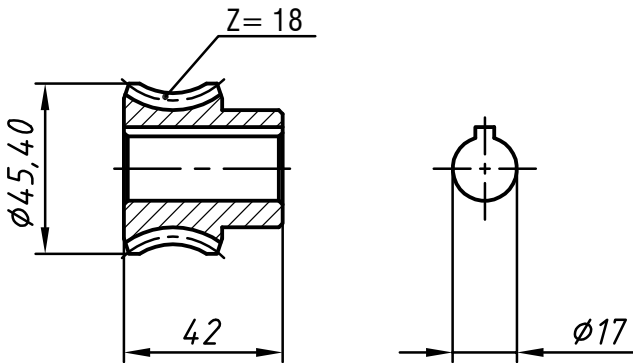
No de cde Bestell Nr Order Nr	Huileurs type Oeler Typ Oiler type	Ø D mm	M mm
1402.0000	HR1 M7	21	M7
1405.0000	HR2 M8	30	M8





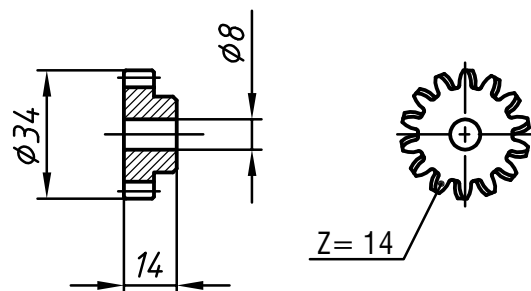
Vis sans fin en acier  
 Schnecke aus Stahl  
 Worm screw of steel

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1410.0000	M-4 M-7



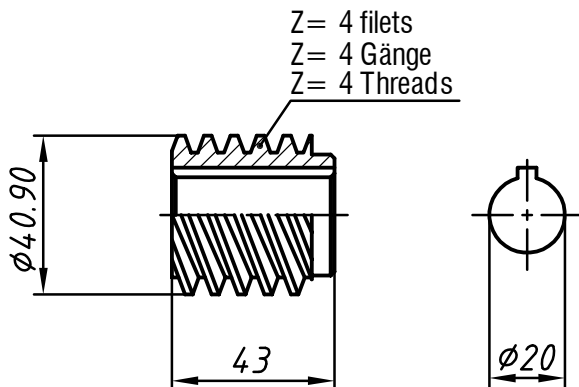
Roue de vis sans fin en bronze  
 Schnecken-Rad aus Bronze  
 Worm gear of bronze

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1411.0000	M-4 M-7



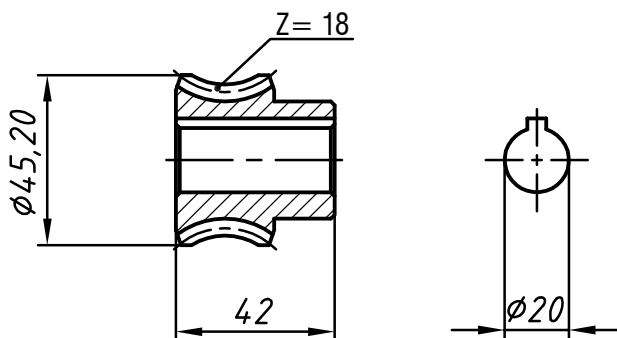
Engrenage hélicoïdal d'amenée d'huile  
 Spiral-Rad für Oel-Zufuhr  
 Helical gear for oil feed

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1412.0000	M-4 M-7



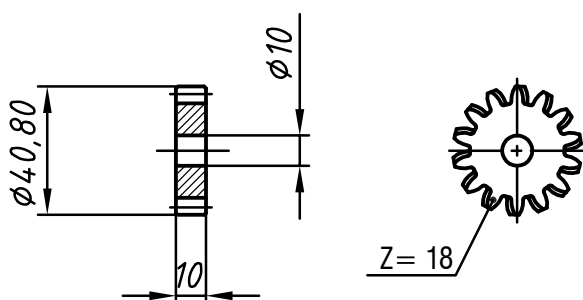
Vis sans fin en acier  
 Schnecke aus Stahl  
 Worm screw of steel

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1417.0000	R-10



Roue de vis sans fin en bronze  
 Schnecken-Rad aus Bronze  
 Worm gear of bronze

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1418.0000	R-10

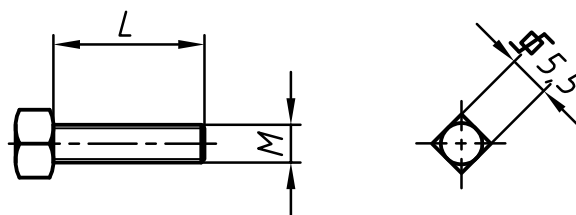


Engrenage hélicoïdal d'amenée d'huile  
 Spiral-Rad für Öl-Zufuhr  
 Helical gear for oil feed

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines
1419.0000	R-10

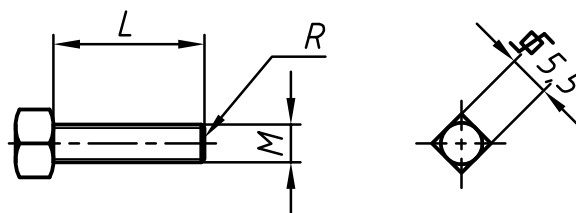
Vis à tête carrée  
 Vierkant-Schrauben  $\phi$  5,5  
 Square head screws

No de cde Bestell Nr Order Nr	M mm	L mm
1420.0000	M5 x 0,75	5
1421.0000	M5 x 0,75	6
1422.0000	M5 x 0,75	7
1423.0000	M5 x 0,75	8
1424.0000	M5 x 0,75	9
1425.0000	M5 x 0,75	10
1426.0000	M5 x 0,75	11
1427.0000	M5 x 0,75	12
1428.0000	M5 x 0,75	13
1429.0000	M5 x 0,75	14
1430.0000	M5 x 0,75	15
1431.0000	M5 x 0,75	16
1432.0000	M5 x 0,75	17
1433.0000	M5 x 0,75	18
1434.0000	M5 x 0,75	19
1435.0000	M5 x 0,75	20
1436.0000	M5 x 0,75	21
1437.0000	M5 x 0,75	22
1438.0000	M5 x 0,75	23
1439.0000	M5 x 0,75	24
1440.0000	M5 x 0,75	30



Vis à tête carrée  
 Vierkant-Schrauben  $\phi$  5,5  
 Square head screws

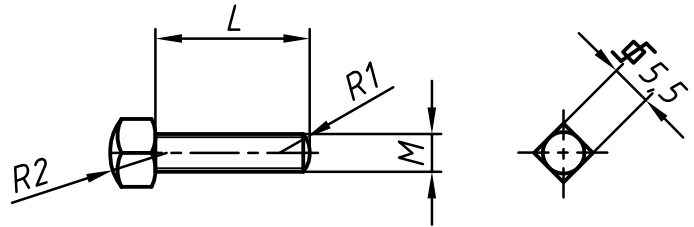
No de cde Bestell Nr Order Nr	M mm	L mm	R
1441.0000	M5 x 0,5	20	X
1442.0000	M6	7	
1443.0000	M8 x 0,5	15,5	





Vis à tête carrée  
 Vierkant-Schrauben  $\phi$  5,5  
 Square head screws

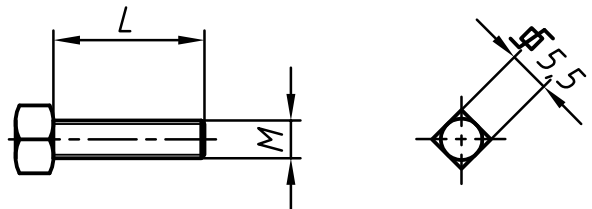
No de cde Bestell Nr Order Nr	M mm	L mm
1444.0000	M5 x 0,8	18
1445.0000	M5 x 0,8	20
1446.0000	M5 x 0,8	28
1447.0000	M5 x 0,8	30



Vis à tête carrée diverses  
 Diverse Vierkant-Schrauben  $\phi$  5,5  
 Square head screws of diverse types

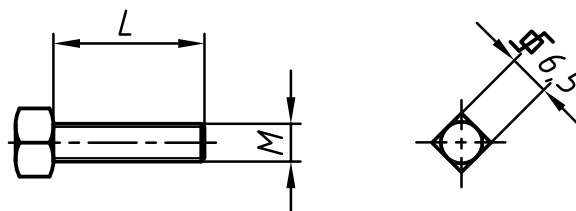
SERIE 1450

No de cde Bestell Nr Order Nr	M mm	L mm
1450.0000	M5 x 0,8	20
1451.0000	M5 x 0,8	30
1452.0000	M6	10
1453.0000	M6	25
1454.0000	M6	50



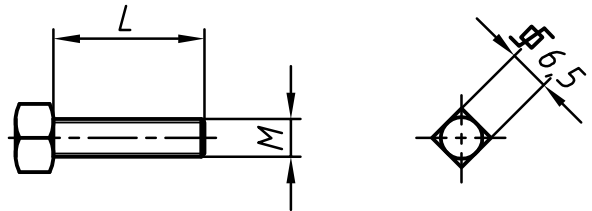
Vis à tête carrée  
 Vierkant-Schrauben  $\square$  6,5  
 Square head screws

No de cde Bestell Nr Order Nr	M mm	L mm
1460.0000	M6	5
1461.0000	M6	6
1462.0000	M6	7
1463.0000	M6	8
1464.0000	M6	9
1465.0000	M6	10
1466.0000	M6	11
1468.0000	M6	13
1469.0000	M6	14
1470.0000	M6	15
1471.0000	M6	16
1472.0000	M6	17
1473.0000	M6	18
1474.0000	M6	19
1475.0000	M6	20
1475.0022	M6	22
1475.0023	M6	23
1476.0026	M6	26
1476.0027	M6	27
1476.0028	M6	28
1476.0029	M6	29
1476.0030	M6	30
1477.0000	M6	32
1479.0000	M6	40
1480.0000	M6	46
1481.0000	M6	47
1482.0000	M6	55



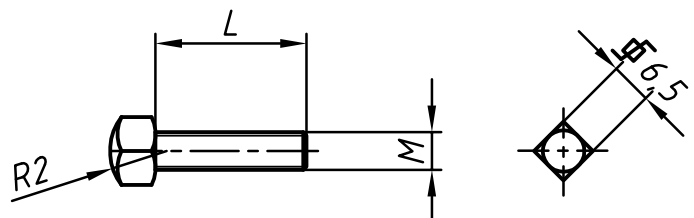
Vis à tête carrée  
 Vierkant-Schrauben  $\Phi$  6,5  
 Square head screw

No de cde Bestell Nr Order Nr	M mm	L mm
1483.0000	M5 x 0.8	10



Vis à tête carrée  
 Vierkant-Schrauben  $\Phi$  6,5  
 Square head screws

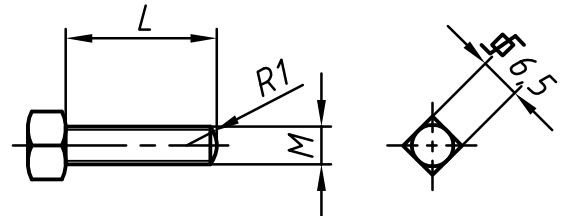
No de cde Bestell Nr Order Nr	M mm	L mm
1486.0000	M6	30
1487.0000	M6	50



Vis à tête carrée  
 Vierkant-Schrauben  
 Square head screws

∅ 6,5

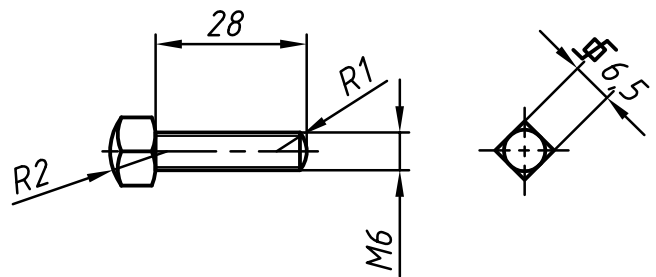
No de cde Bestell Nr Order Nr	M mm	L mm
1495.0000	M6	21
1496.0000	M6	22
1497.0000	M6	28
1498.0000	M6	34
1500.0000	M6 x 0,5	40



Vis à tête carrée pour appareil 13-Y  
 Vierkant-Schraube für Apparat 13-Y  
 Square head screw for attachment 13-Y

∅ 6,5

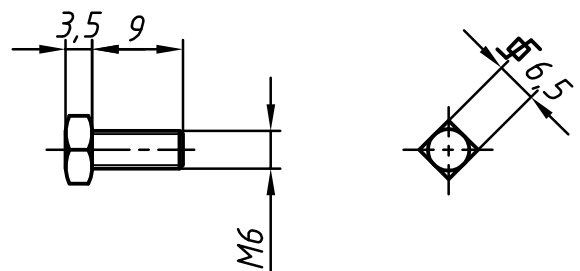
No de cde Bestell Nr Order Nr
1501.0000



Vis à tête carrée  
 Vierkant-Schraube  
 Square head screw

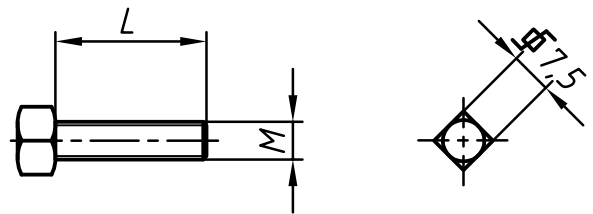
∅ 6,5

No de cde Bestell Nr Order Nr
1502.0000



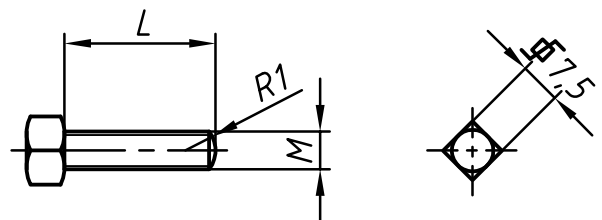
Vis à tête carrée  
 Vierkant-Schrauben  $\phi$  7,5  
 Square head screws

No de cde Bestell Nr Order Nr	M mm	L mm
1503.0000	M7	8
1504.0000	M7	9
1505.0000	M7	10
1506.0000	M7	11
1507.0000	M7	12
1508.0000	M7	13
1509.0000	M7	14
1510.0000	M7	15
1511.0000	M7	16
1512.0000	M7	17
1513.0000	M7	18
1514.0000	M7	19
1515.0000	M7	20
1516.0000	M7	25
1517.0000	M7	30
1518.0000	M7	40
1519.0000	M7	50
1520.0000	M7	55



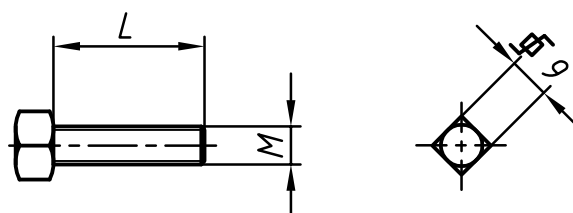
Vis à tête carrée  
 Vierkant-Schraube  $\phi$  7,5  
 Square head screw

No de cde Bestell Nr Order Nr	M mm	L mm
1521.0000	M7	25



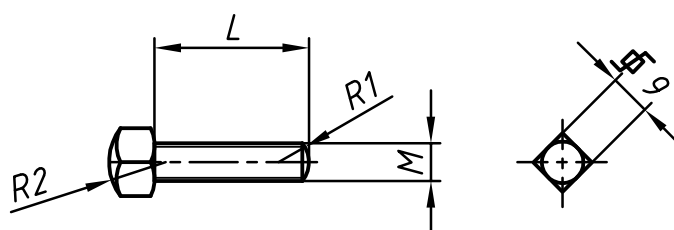
Vis à tête carrée  $\Phi 9$   
 Vierkant-Schraube  $\Phi 9$   
 Square head screw

No de cde Bestell Nr Order Nr	M mm	L mm
1523.0000	M8	30



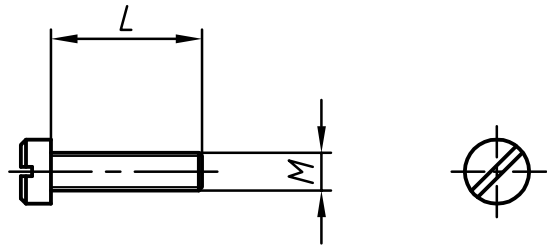
Vis à tête carrée pour appareil 13-CA  $\Phi 9$   
 Vierkant-Schraube für Apparat 13-CA  $\Phi 9$   
 Square head screw for attachment 13-CA

No de cde Bestell Nr Order Nr	M mm	L mm
1524.0000	M8	42



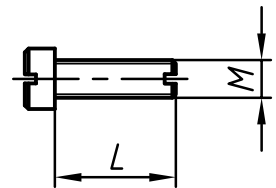
Vis à tête cylindrique  
 Zylinderkopf-Schrauben  
 Cylinder head screws

No de cde Bestell Nr Order Nr	M x L mm
1530.0000	M5 x 15
1531.0000	M5 x 17
1532.0000	M6 x 10
1533.0000	M6 x 11
1534.0000	M6 x 12
1535.0000	M6 x 13
1536.0000	M6 x 14
1537.0000	M6 x 15
1538.0000	M6 x 20
1539.0000	M6 x 21



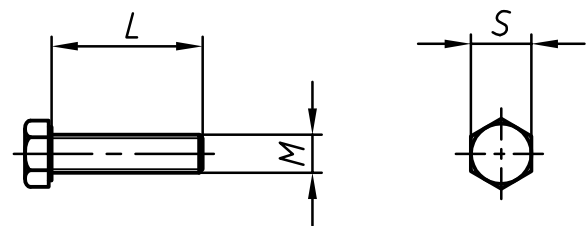
Vis pour écrou de réglage  
 Schrauben für Regelmutter  
 Screws for setting nut

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M x L mm
1542.0000	M-4	M4 x 0.75 x L 16
1544.0000	M-7	M5 x 0.75 x L 17



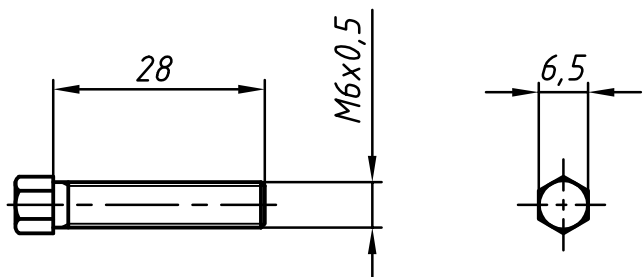
Vis à tête hexagonale  
 Sechskant-Schrauben  
 Hexagonal head screws

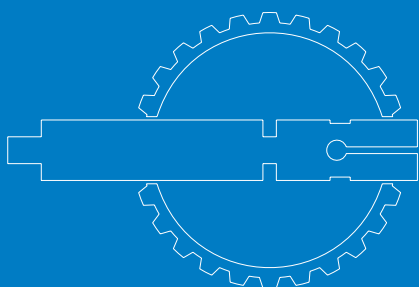
No de cde Bestell Nr Order Nr	M x L mm	S mm
1545.0000	M7 x 30	13
1548.0000	M9 x 30	15



Vis à tête hexagonale (arrêt bascule)  
 Sechskant-Schraube (Wippen-Anschlag)  
 Hexagonal head screw (rocker stop)

No de cde Bestell Nr Order Nr
1549.0000





ANDRÉ FREI & FILS SA

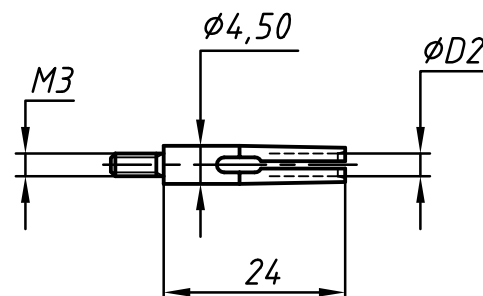


PINCES POUR RAVITAILLEURS TORNOS 30 TUBES  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 30 ROHREN  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 30 TUBES

01.02

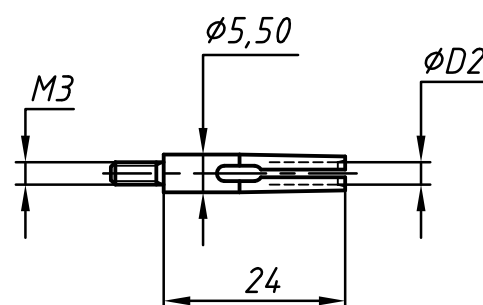
SERIE 2100

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2100.0000	0,80 - 3,50		0,10 - 0,10



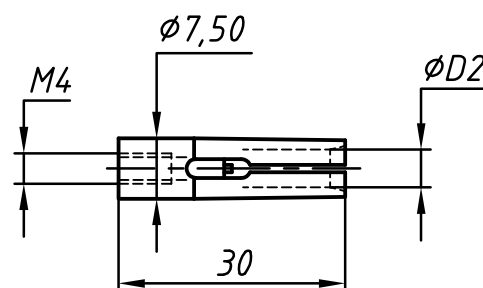
PINCES POUR RAVITAILLEURS TORNOS 30 TUBES ET BARBOY 2-4  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 30 ROHREN UND BARBOY 2-4  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 30 TUBES AND BARBOY 2-4

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2101.0000	1 - 4,50		0,10 - 0,10



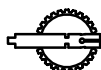
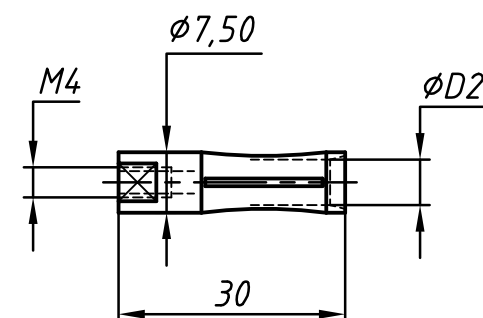
PINCES POUR RAVITAILLEURS TORNOS 24 TUBES - SUPER - (VERTICAL) ET BARBOY 2-7  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 24 ROHREN -SUPER (SENKRECHT) UND BARBOY 2-7  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 24 TUBES -SUPER (VERTICAL) AND BARBOY 2-7

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2102.0000	1 - 6		0,10 - 0,10



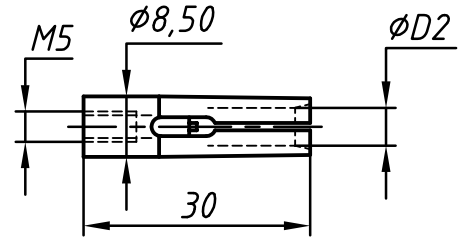
Type RFC

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2103.0000	6 - 6,50		0,10 - 0,10



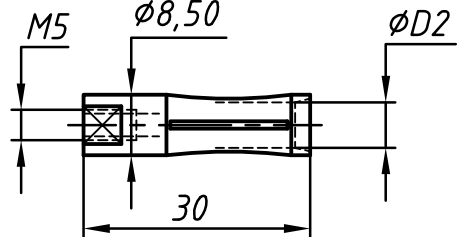
PINCES POUR RAVITAILLEURS TORNOS 24 TUBES - SUPER - (VERTICAL) ET BARBOY 2-7  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 24 ROHREN - SUPER (SENKRECHT) UND BARBOY 2-7  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 24 TUBES - SUPER (VERTICAL) AND BARBOY 2-7

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2104.0000	2 - 7		0,50 - 0,50



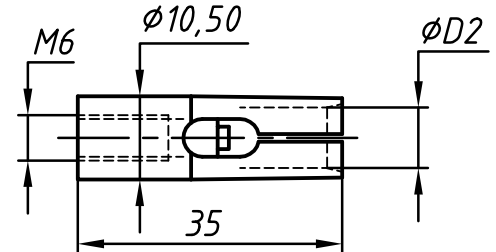
Type RFC

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2105.0000	6,50 - 7,50		0,10 - 0,10



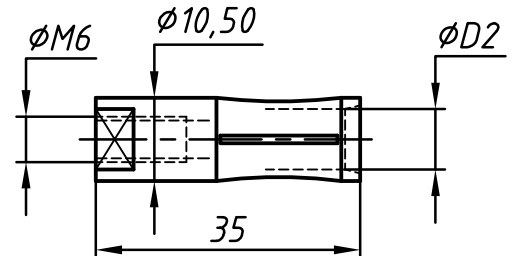
PINCES POUR RAVITAILLEURS TORNOS 24 TUBES - SUPER - (VERTICAL) ET BARBOY 7-9  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 24 ROHREN - SUPER (SENKRECHT) UND BARBOY 7-9  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 24 TUBES - SUPER (VERTICAL) AND BARBOY 7-9

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2106.0000	2 - 9		0,50 - 0,50



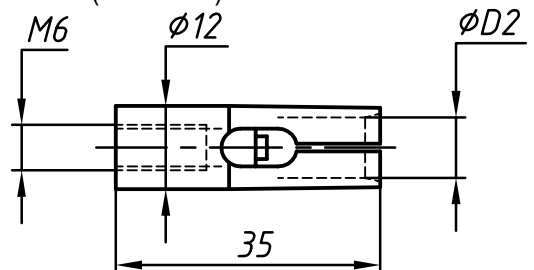
Type RFC

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2107.0000	8,50 - 9,50		0,10 - 0,10



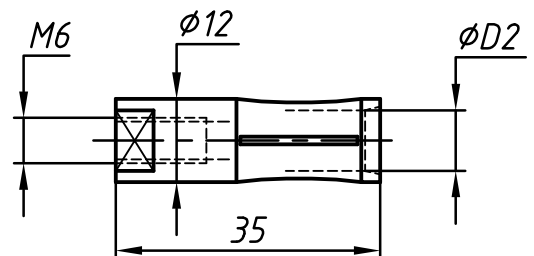
PINCES POUR RAVITAILLEURS TORNOS 24 TUBES - SUPER - (VERTICAL) ET BARBOY 7-11  
 KLEMMZANGEN FUER TORNOS STANGENLADER MIT 24 ROHREN - SUPER (SENKRECHT) UND BARBOY 7-11  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS WITH 24 TUBES - SUPER (VERTICAL) AND BARBOY 7-11

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2108.0000	3 - 11		0,50 - 0,50



Type RFC

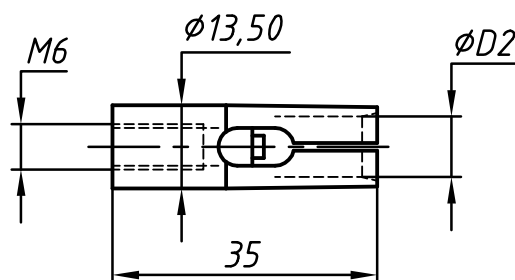
No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2109.0000	10 - 11		0,10 - 0,10



PINCES POUR RAVITAILLEURS TORNOS BARBOY 13-G  
 KLEMMZANGEN FUER TORNOS STANGENLADER BARBOY 13-G  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS BARBOY 13-G

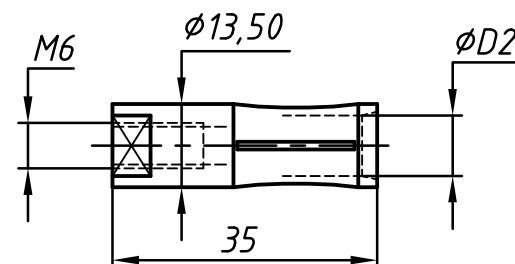
SERIE 2110

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2110.0000	3 - 12		0,50 - 0,50



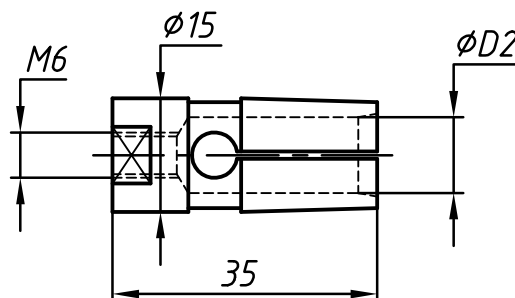
Type RFC

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2111.0000	11,5 - 12,50		0,50 - 0,50



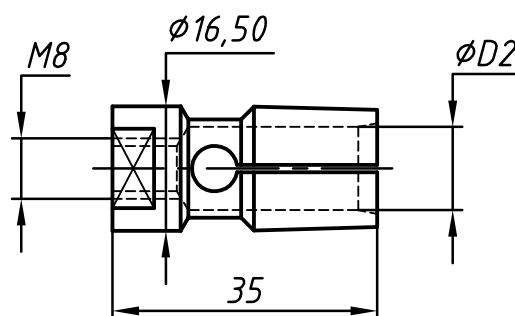
PINCES POUR RAVITAILLEURS TORNOS TORNOBAR 15  
 KLEMMZANGEN FUER TORNOS STANGENLADER TORNOBAR 15  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS TORNOBAR 15

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2112.0000	5 - 13		0,50 - 0,50



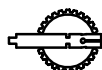
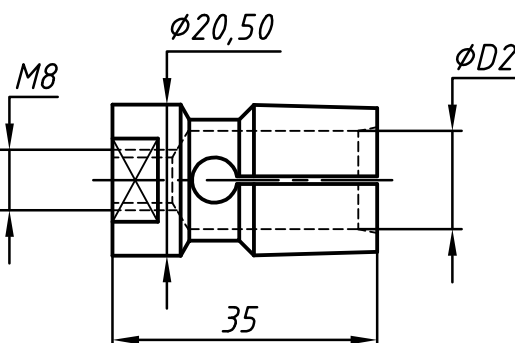
PINCES POUR RAVITAILLEURS TORNOS BARBOY 16,50  
 KLEMMZANGEN FUER TORNOS STANGENLADER BARBOY 16,50  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS BARBOY 16,50

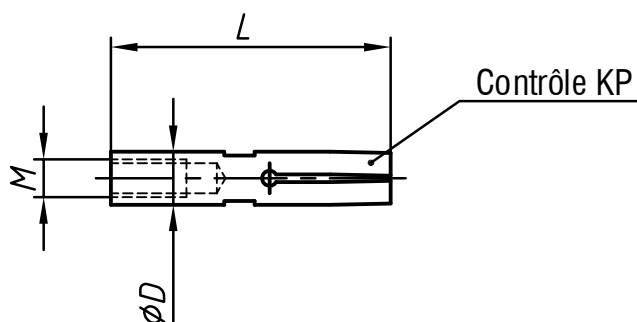
No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2113.0000	8 - 15		0,50 - 0,50



PINCES POUR RAVITAILLEURS TORNOS BARBOY 20,50  
 KLEMMZANGEN FUER TORNOS STANGENLADER BARBOY 20,50  
 CLAMPING FINGERS FOR TORNOS BARFEEDERS BARBOY 20,50

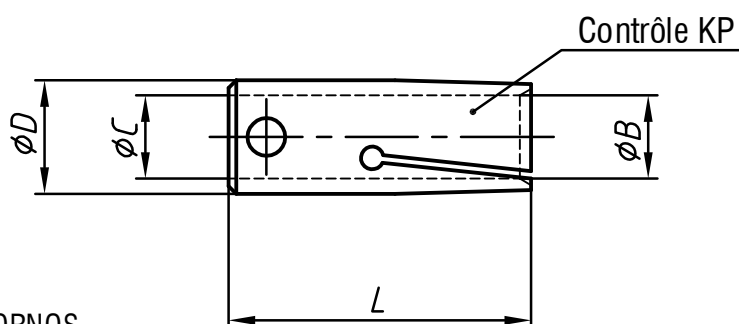
No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecart Abstand Distance
2114.0000	8 - 18		0,50 - 0,50





ROBOBAR TORNOS 5 / 7mm

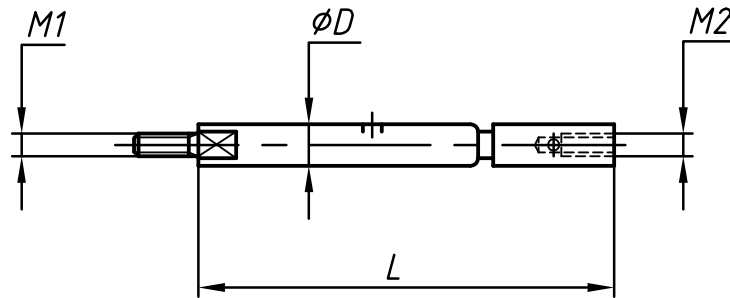
No de cde Bestell Nr Order Nr	Ø d mm	L mm	M mm	Alésage Bohrung Bore mm	Ecart Abstand Distance mm
9115.0000 (2120.0000)	5	37	M4	Ø 1,50 - 4,00	0,10 - 0,10
9100.0000 (2121.0000)	7	37	M5	Ø 2,00 - 5,50	0,10 - 0,10



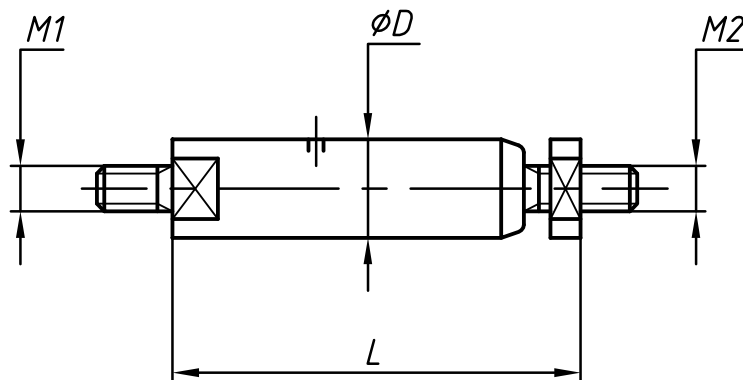
ROBOBAR TORNOS

No de cde Bestell Nr Order Nr	Ø D mm	Alésage Bohrung Bore mm	Ø B mm	Ø C mm	L mm
9101.0000 (2122.0000)	10	3 - 8	7	7	40
9102.0000 (2123.0000)	12	4 - 10	8	8	40
9103.0000 (2124.0000)	15	7 - 13	11	11	40
9106.0000 (2125.0000)	20	10 - 17,50	14	14	65
9107.0000 (2126.0000)	25	15 - 22,50	20	20	65

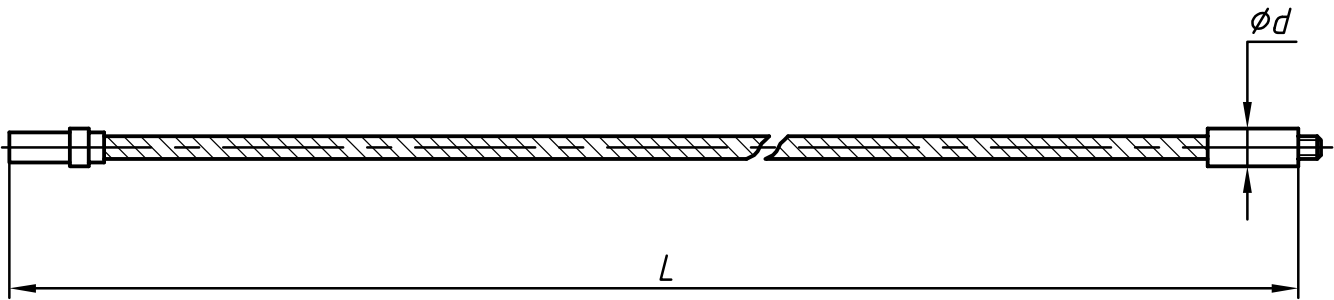
Autres dimensions : Voir séries 9100 & 9115  
 Andere Ausmass : Siehe Klasse 9100 & 9115  
 Other sizes : See series 9100 & 9115



No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	M1 mm	M2 mm
2140.0000	4,50	54,5	M3	M3
2141.0000	5,50	54,5	M3	M3



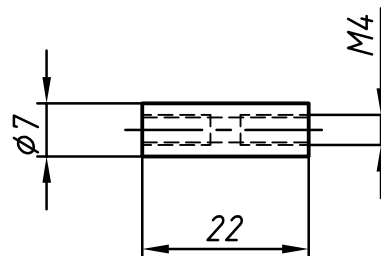
No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	M1 mm	M2 mm
2142.0000	7	46	M5	M4
2143.0000	7,50	46	M5	M4
2144.0000	8,50	46	M5	M5
2145.0000	10,50	53	M6	M6
2146.0000	12	53	M6	M6
2147.0000	13-G	53	M6	M6
2148.0000	15	70	M7	M6
2149.0000	16	72	M7	M8
2150.0000	20	73	M7	M8



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	TELEFLEX	Ø d mm	L M
2160.0000	Super - Telebar	30 tubes	4,80/3,80	2
2161.0000	Super - Telebar	30 tubes	4,80/3,80	3
2162.0000	Super - Telebar	24 tubes	6,80/3,80	3
2163.0000	Super - Telebar	Vertical	6,80/4,80	3

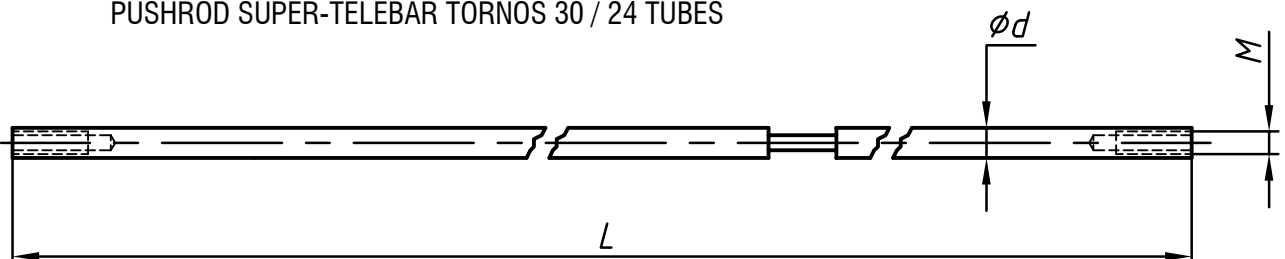
RALLONGE  
 VERLAENGERUNG  
 EXTENSION

No de cde Bestell Nr Order Nr
2164.0000

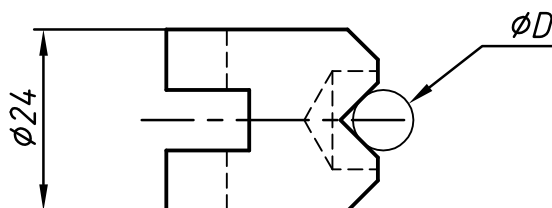


POUSSETTE SUPER-TELEBAR TORNOS 30 / 24 TUBES  
 STOSS-STANGE SUPER-TELEBAR TORNOS 30 / 24 ROHRE  
 PUSHROD SUPER-TELEBAR TORNOS 30 / 24 TUBES

SERIE 2170

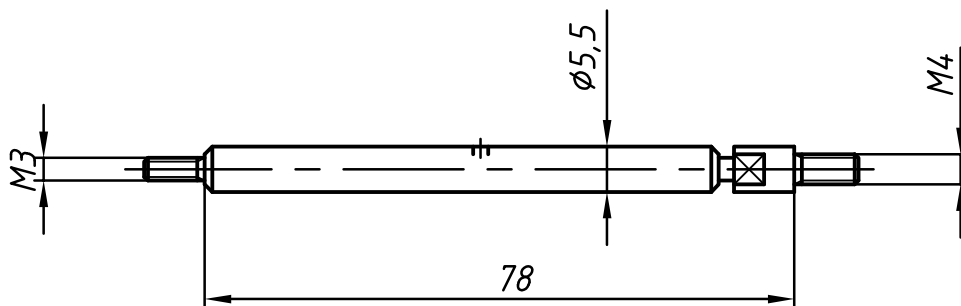


No de cde Bestell Nr Order Nr	Type Typ Type	L mm	Ød mm	M mm
2170.0000	30 tubes	457	4,50	M3
2171.0000	24 tubes	443	7	M5



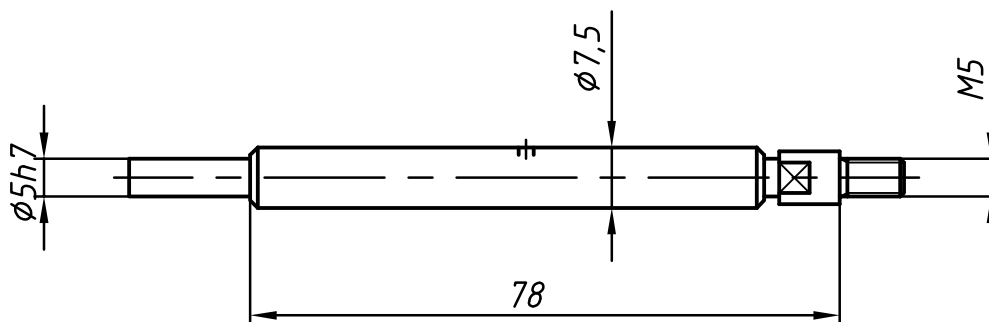
No de cde Bestell Nr Order Nr	Capacité Durchlass Capacity	Ø D mm
2172.0809	Ø 0,8 - 0,9	
2172.0910	Ø 0,9 - 1,0	
2172.1011	Ø 1,0 - 1,1	
2172.1112	Ø 1,1 - 1,2	
2172.1213	Ø 1,2 - 1,3	
2172.1314	Ø 1,3 - 1,4	
2172.1415	Ø 1,4 - 1,5	
2172.1516	Ø 1,5 - 1,6	
2172.1617	Ø 1,6 - 1,7	
2172.1718	Ø 1,7 - 1,8	
2172.1819	Ø 1,8 - 1,9	
2172.1920	Ø 1,9 - 2,0	
2172.2021	Ø 2,0 - 2,1	
2172.2122	Ø 2,1 - 2,2	
2172.2223	Ø 2,2 - 2,3	
2172.2324	Ø 2,3 - 2,4	
2172.2425	Ø 2,4 - 2,5	
2172.2526	Ø 2,5 - 2,6	
2172.2627	Ø 2,6 - 2,7	
2172.2728	Ø 2,7 - 2,8	
2172.2829	Ø 2,8 - 2,9	
2172.2930	Ø 2,9 - 3,0	
2172.3031	Ø 3,0 - 3,1	
2172.3132	Ø 3,1 - 3,2	
2172.3233	Ø 3,2 - 3,3	
2172.3334	Ø 3,3 - 3,4	
2172.3435	Ø 3,4 - 3,5	
2172.3536	Ø 3,5 - 3,6	
2172.3637	Ø 3,6 - 3,7	
2172.3738	Ø 3,7 - 3,8	
2172.3839	Ø 3,8 - 3,9	
2172.3940	Ø 3,9 - 4,0	

No de cde Bestell Nr Order Nr	Capacité Durchlass Capacity	Ø D mm
2172.4041	Ø 4,0 - 4,1	
2172.4142	Ø 4,1 - 4,2	
2172.4243	Ø 4,2 - 4,3	
2172.4344	Ø 4,3 - 4,4	
2172.4445	Ø 4,4 - 4,5	
2172.4546	Ø 4,5 - 4,6	
2172.4647	Ø 4,6 - 4,7	
2172.4748	Ø 4,7 - 4,8	
2172.4849	Ø 4,8 - 4,9	
2172.4950	Ø 4,9 - 5,0	
2172.5051	Ø 5,0 - 5,1	
2172.5152	Ø 5,1 - 5,2	
2172.5253	Ø 5,2 - 5,3	
2172.5354	Ø 5,3 - 5,4	
2172.5455	Ø 5,4 - 5,5	
2172.5556	Ø 5,5 - 5,6	
2172.5657	Ø 5,6 - 5,7	
2172.5758	Ø 5,7 - 5,8	
2172.5859	Ø 5,8 - 5,9	
2172.5960	Ø 5,9 - 6,0	
2172.6061	Ø 6,0 - 6,1	
2172.6162	Ø 6,1 - 6,2	
2172.6263	Ø 6,2 - 6,3	
2172.6364	Ø 6,3 - 6,4	
2172.6465	Ø 6,4 - 6,5	
2172.6566	Ø 6,5 - 6,6	
2172.6667	Ø 6,6 - 6,7	
2172.6768	Ø 6,7 - 6,8	
2172.6869	Ø 6,8 - 6,9	
2172.6970	Ø 6,9 - 7,0	
2172.7071	Ø 7,0 - 7,1	



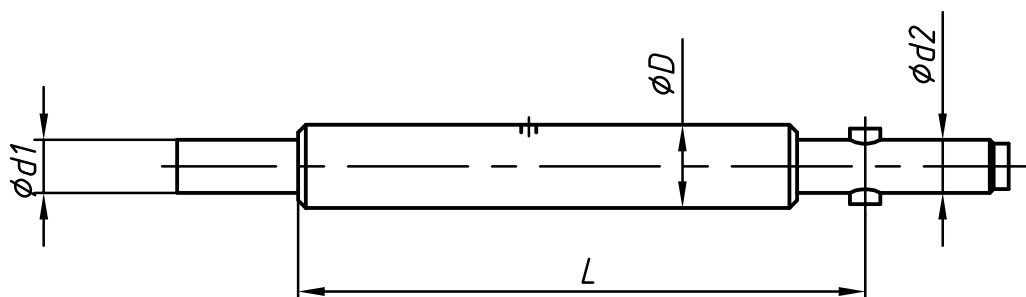
ROBOBAR 5,5

No de cde
Bestell Nr
Order Nr
2180.0000



ROBOBAR 7,5

No de cde
Bestell Nr
Order Nr
2181.0000



ROBOBAR 10,5 - 26

No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	$\phi d1$ mm	$\phi d2$ mm
2182.0000	10,5	81	7	7
2183.0000	16	126	10	11
2184.0000	20,5	127	14	14
2185.0000	25	127	20	20
2186.0000	26	127	20	20

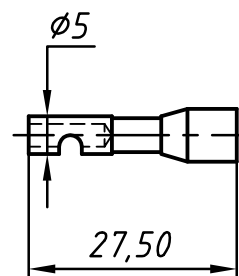


PINCES POUR TRANSPORTEUR TORNOS 14-OA  
 SPANNZANGEN FUER TORNOS TRANSPORTARM 14-OA  
 COLLETS FOR TORNOS TRANSPORT LEVER 14-OA

01.02

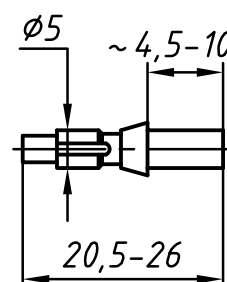
SERIE 2190

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2190.0000	A
2191.0000	B
2192.0000	C
2192.0001	D
2192.0002	E
2192.0003	F



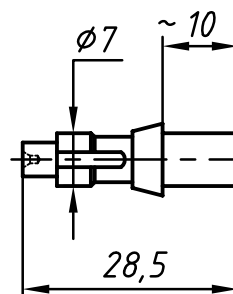
PINCES POUR TRANSPORTEUR TORNOS 12-EA  
 SPANNZANGEN FUER TORNOS TRANSPORTARM 12-EA  
 COLLETS FOR TORNOS TRANSPORT LEVER 12-EA

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2193.0000	A
2194.0000	B
2195.0000	C
2195.0001	D
2195.0002	E
2195.0003	F



PINCES POUR TRANSPORTEUR TORNOS 12-UB 12-JB 34-DA  
 SPANNZANGEN FUER TORNOS TRANSPORTARM 12-UB 12-JB 34-DA  
 COLLETS FOR TORNOS TRANSPORT LEVER 12-UB 12-JB 34-DA

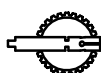
No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2196.0000	A
2197.0000	B
2198.0000	C
2198.0001	D
2198.0002	E
2198.0003	F



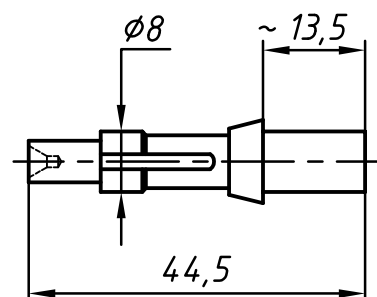
Ausfuerung A	Rohling mit Uebermass 0,20
Ausfuerung B	Rohling auf Mass geschliffen
Ausfuerung C	Fertige Zange, einzige Bohrung
Ausfuerung D	Fertige Zange, spezielle Bohrung
Ausfuerung E	Fertige Zange, einzige Bohrung mit Auswerfer
Ausfuerung F	Fertige Zange, spezielle Bohrung mit Auswerfer

Exécution A	Ebauche avec surépaisseur de 0.20
Exécution B	Ebauche meulée à la cote
Exécution C	Pince terminée, alésage simple
Exécution D	Pince terminée, alésage spécial
Exécution E	Pince terminée, alésage simple avec extracteur
Exécution F	Pince terminée, alésage spécial avec extracteur

Make A	Blank with oversize 0.20
Make B	Blank milled at size
Make C	Finished collet, single bore
Make D	Finished collet, special bore
Make E	Finished collet, single bore with extractor
Make F	Finished collet, special bore with extractor

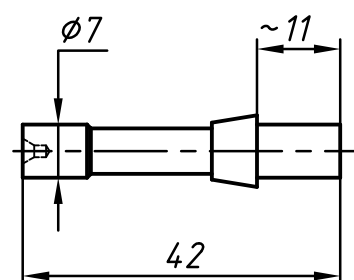


No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2199.0000	A
2200.0000	B
2201.0000	C
2201.0001	D
2201.0002	E
2201.0003	F



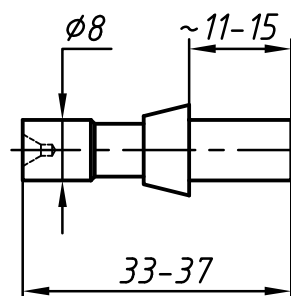
PINCES PRISE DE PIECE COMBINE 3 BROCHES TORNOS 13-PB  
 AUFNAHME-ZANGEN FUER KOMBINIERTEN 3-SPINDLIGEN APPARAT TORNOS 13-PB  
 PICK-UP COLLETS FOR COMBINED 3-SPINDLE ATTACHMENT TORNOS 13-PB

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2202.0000	A
2203.0000	B
2204.0000	C
2204.0001	D
2204.0002	E
2204.0003	F



PINCES PRISE DE PIECE COMBINE 3 BR. TORNOS 13-Y  
 AUFNAHME-ZANGEN FUER KOMBINIERTEN 3-SPINDLIGEN APPARAT TORNOS 13-Y  
 PICK-UP COLLETS FOR COMBINED 3-SPINDLE ATTACHMENT TORNOS 13-Y

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2205.0000	A
2206.0000	B
2207.0000	C
2207.0001	D
2207.0002	E
2207.0003	F



Ausfuerung A	Rohling mit Uebermass 0,20
Ausfuerung B	Rohling auf Mass geschliffen
Ausfuerung C	Fertige Zange, einzige Bohrung
Ausfuerung D	Fertige Zange, spezielle Bohrung
Ausfuerung E	Fertige Zange, einzige Bohrung mit Auswerfer
Ausfuerung F	Fertige Zange, spezielle Bohrung mit Auswerfer

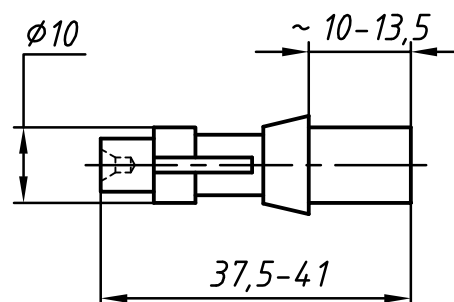
Exécution A	Ebauche avec surépaisseur de 0,20
Exécution B	Ebauche meulée à la cote
Exécution C	Pince terminée, alésage simple
Exécution D	Pince terminée, alésage spécial
Exécution E	Pince terminée, alésage simple avec extracteur
Exécution F	Pince terminée, alésage spécial avec extracteur

Make A	Blank with oversize 0,20
Make B	Blank milled at size
Make C	Finished collet, single bore
Make D	Finished collet, special bore
Make E	Finished collet, single bore with extractor
Make F	Finished collet, special bore with extractor

PINCES POUR TRANSPORTEUR TORNOS 34-DA  
 SPANNZANGEN FUER TRANSPORTARM TORNOS 34-DA  
 COLLETS FOR TORNOS TRANSPORT LEVER 34-DA

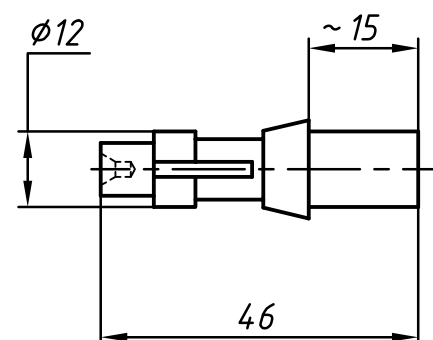
SERIE 2200  
 2210

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2208.0000	A
2209.0000	B
2210.0000	C
2210.0001	D
2210.0002	E
2210.0003	F



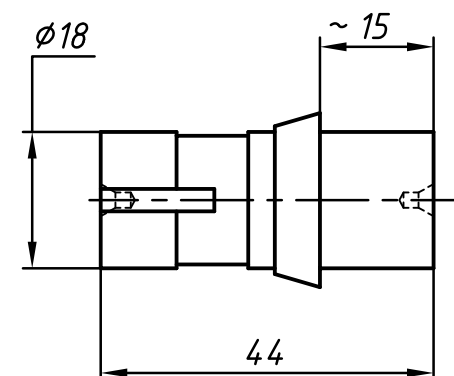
PINCES POUR TRANSPORTEUR TORNOS 34-DA  
 SPANNZANGEN FUER TRANSPORTARM TORNOS 34-DA  
 COLLETS FOR TORNOS TRANSPORT LEVER 34-DA

No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2211.0000	A
2212.0000	B
2213.0000	C
2213.0001	D
2213.0002	E
2213.0003	F



PINCES POUR TRANSPORTEUR TORNOS 14-BA RR-20  
 SPANNZANGEN FUER TRANSPORTARM TORNOS 14-BA RR-20  
 COLLETS FOR TORNOS TRANSPORT LEVER 14-BA RR-20

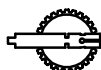
No de cde Bestell Nr Order Nr	Exécution Ausfuerung Make
2214.0000	A
2215.0000	B
2216.0000	C
2216.0001	D
2216.0002	E
2216.0003	F



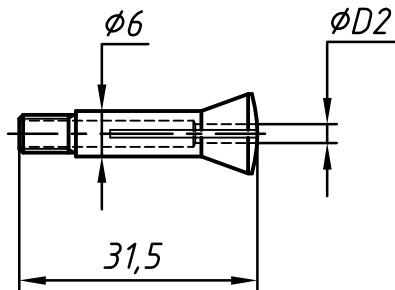
Ausfuerung A	Rohling mit Uebermass 0,20
Ausfuerung B	Rohling auf Mass geschliffen
Ausfuerung C	Fertige Zange, einzige Bohrung
Ausfuerung D	Fertige Zange, spezielle Bohrung
Ausfuerung E	Fertige Zange, einzige Bohrung mit Auswerfer
Ausfuerung F	Fertige Zange, spezielle Bohrung mit Auswerfer

Exécution A	Ebauche avec surépaisseur de 0,20
Exécution B	Ebauche meulée à la cote
Exécution C	Pince terminée, alésage simple
Exécution D	Pince terminée, alésage spécial
Exécution E	Pince terminée, alésage simple avec extracteur
Exécution F	Pince terminée, alésage spécial avec extracteur

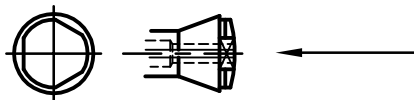
Make A	Blank with oversize 0,20
Make B	Blank milled at size
Make C	Finished collet, single bore
Make D	Finished collet, special bore
Make E	Finished collet, single bore with extractor
Make F	Finished collet, special bore with extractor



Pince B-6  
 Spannzange B-6  
 Collet B-6

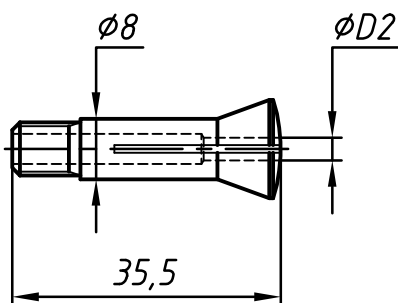


No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecarts Abstand Distance
2220.0000	0,50 - 0,90		0,10 - 0,10
2220.0001	1,00 - 1,40		0,10 - 0,10
2220.0002	1,50 - 2,90		0,10 - 0,10
2220.0003	3,10 - 5,90		0,10 - 0,10
2220.0004	6,10 - 7,00		0,10 - 0,10
2221.0000	3,00 - 6,00		0,50 - 0,50

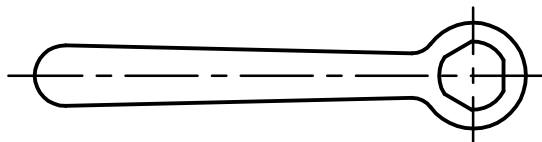


Sur demande  
 Auf Verlangen  
 On request

Pince B-8  
 Spannzange B-8  
 Collet B-8

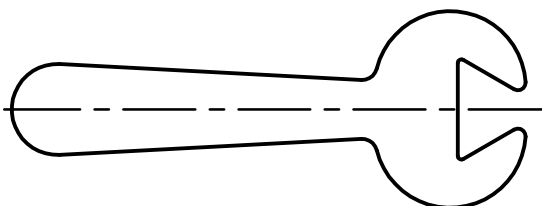


No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecarts Abstand Distance
2222.0000	0,50 - 0,90		0,10 - 0,10
2222.0001	1,00 - 1,40		0,10 - 0,10
2222.0002	1,50 - 2,90		0,10 - 0,10
2222.0003	3,10 - 7,90		0,10 - 0,10
2223.0000	3,00 - 8,00		0,50 - 0,50



Clé pour pince B-6  
 Schlüssel für Zange B-6  
 Wrench for collet B-6

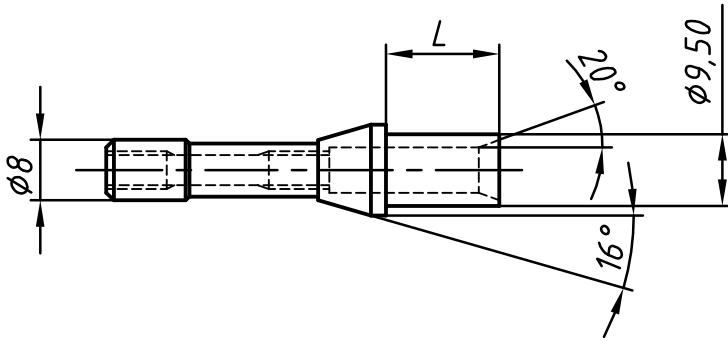
No de cde Bestell Nr Order Nr
2226.0000



Clé pour pince B-8  
 Schlüssel für Zange B-8  
 Wrench for collet B-8

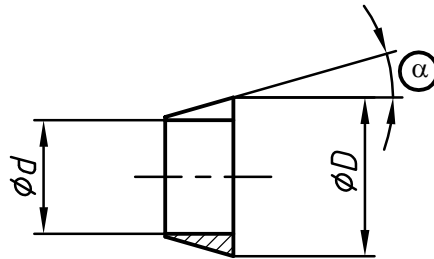
No de cde Bestell Nr Order Nr
2227.0000

Rallonge F-8 pour pince B-6  
 Verlaengerung F-8 für Zange B-6  
 Extension F-8 for collet B-6



No de cde Bestell Nr Order Nr	L mm
2228.1000	10
2228.1250	12,50
2228.1500	15
2228.1750	17,50
2228.2000	20
2228.2250	22,50
2228.2500	25
2228.2750	27,50
2228.3000	30
2228.3250	32,50
2228.3500	35
2228.4000	40
2228.4200	42

CONES  
 KEGEL  
 CONES

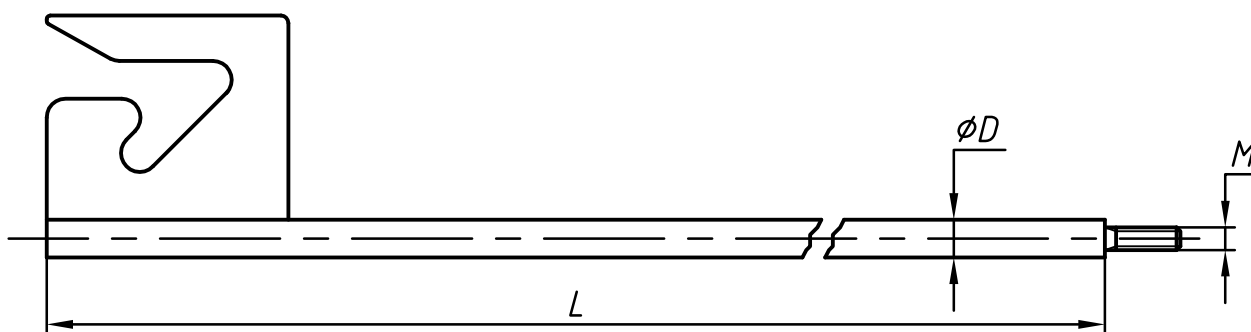


No de cde Bestell Nr Order Nr	Type Typ Type	$\varnothing d$ mm	$\varnothing D$ mm	$\alpha$
2229.0710	F7 15°	7	10,7	15°
2229.0712	F7 16°	7	12	16°
2229.0812	F8 16°	8	12	16°
2229.1015	F10 20°	10	15,5	20°
2229.1218	F12 16°	12	18	16°
2229.1622	F16 16°	16	22	16°

POUSSETTES TELEBAR TORNOS 9 ET 12 TUBES  
 STOSS-STANGEN FUER TORNOS TELEBAR MIT 9 UND 12 ROHREN  
 PUSHRODS FOR TORNOS TELEBAR WITH 9 OR 12 TUBES

12.12

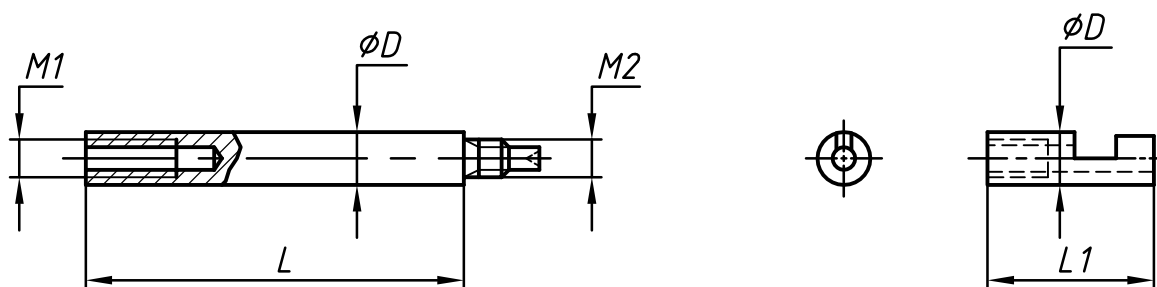
SERIE 2230



No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Type Typ Type	Ø D mm	L mm	M mm
2230.0000	M-4	12 Tubes	4,50	467	M3
2231.0000	M-7	12 Tubes	5	570	M3
2232.0000	R-10	9 Tubes	7	695	M5
2233.0000	M-7	9 Tubes	7	570	M5

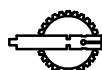
ENTRETOISES ET CROCHETS TELEBAR TORNOS 9 ET 12 TUBES  
 ZWISCHENSTUECKE UND HAKEN FUER TORNOS TELEBAR MIT 9 UND 12 ROHREN  
 DISTANCE PIECES AND HOOKS FOR TORNOS TELEBAR WITH 9 OR 12 TUBES

SERIE 2240  
2250



No de cde Bestell Nr Order Nr	Ø D mm	L mm	M 1 mm	M 2 mm
2240.4530	4,50	30	M3	M3
2241.4585	4,50	85	M3	M3
2241.4511	4,50	110	M3	M3
2242.5040	5	40	M3	M3
2243.5070	5	70	M3	M3
2244.5110	5	110	M3	M3
2245.7050	7	50	M5	M5
2246.7110	7	110	M5	M5

No de cde Bestell Nr Order Nr	Ø D mm	L 1 mm
2250.0000	4,50	20
2251.0000	5	20
2252.0000	7	22

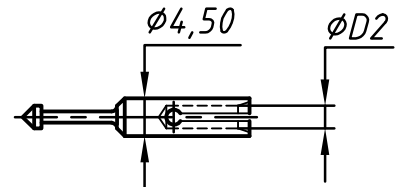


ATTACHES TELEBAR TORNOS M-4 12 TUBES CORP 4,50  
 KLEMMZANGEN FUER TORNOS TELEBAR M-4 MIT 12 ROHREN SCHAFT 4,50  
 CLAMPING FINGERS FOR TORNOS TELEBAR M-4 WITH 12 TUBES SHANK 4,50

01.07

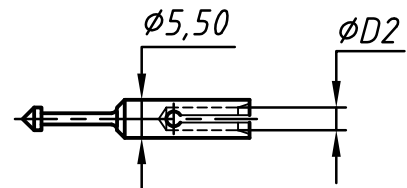
SERIE 2270

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecarts Abstand Distance
2271.0000	0,90 - 3,50		0,10 - 0,10



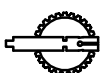
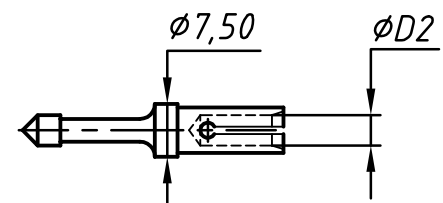
ATTACHES TELEBAR TORNOS M-7 12 TUBES CORP 5,50  
 KLEMMZANGEN FUER TORNOS TELEBAR M-7 MIT 12 ROHREN SCHAFT 5,50  
 CLAMPING FINGERS FOR TORNOS TELEBAR M-7 WITH 12 TUBES SHANK 5,50

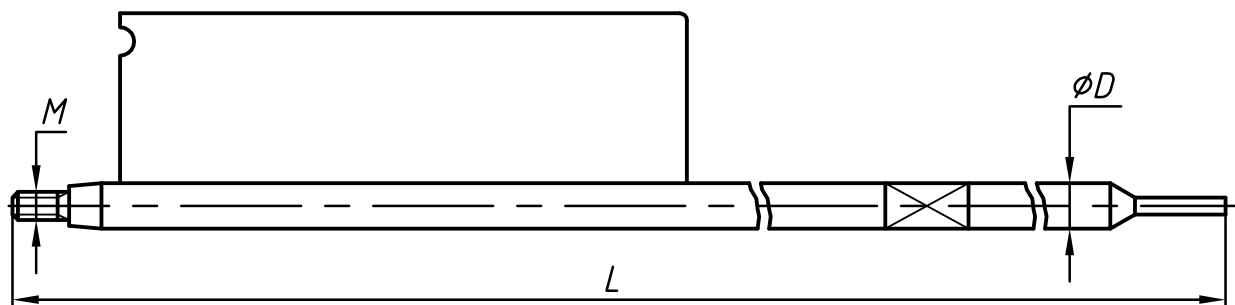
No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecarts Abstand Distance
2273.0000	0,90 - 4,50		0,10 - 0,10



ATTACHES TELEBAR TORNOS 9 TUBES CORP 7,50  
 KLEMMZANGEN FUER TORNOS TELEBAR MIT 9 ROHREN SCHAFT 7,50  
 CLAMPING FINGERS FOR TORNOS TELEBAR WITH 9 TUBES SHANK 7,50

No de cde Bestell Nr Order Nr	Alésage Bohrung Bore	Ø D2 mm	Ecarts Abstand Distance
2275.0000	1,50 - 6,50		0,50 - 0,50

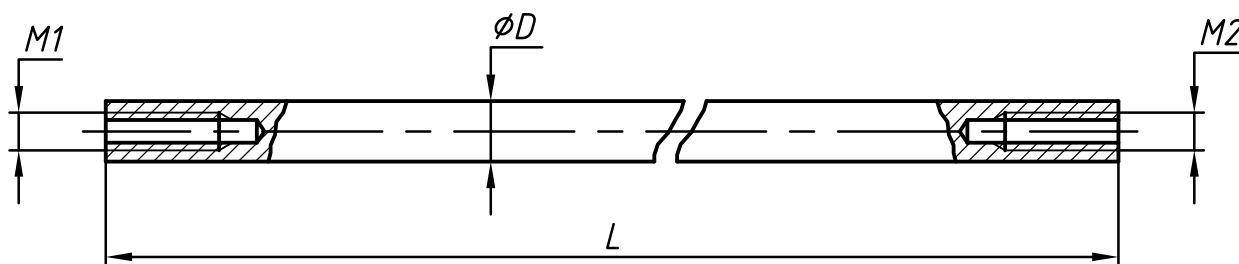
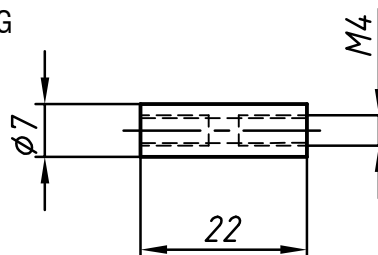




No de cde Bestell Nr Order Nr	Ø D mm	M mm	L mm	Capacité Durchlass Capacity	Barboy Ø mm
2280.0000	5	M3	373	2 - 4	
2282.0000	8	M5	374	2 - 9	
2282.0001	8	M5	430	8 - G	
2283.0000	10	M6	375	7 - 11	
2284.0000	12	M6	375	7 - 11	
2285.0000	13	M7	376		
2285.0001	13	M7	430	13 - G	

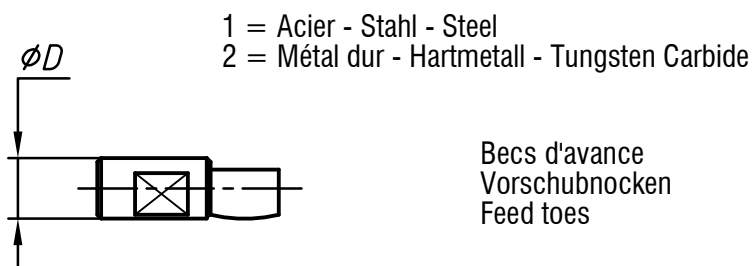
RALLONGE  
 VERLAENGERUNG  
 EXTENSION

No de cde Bestell Nr Order Nr
2164.0000

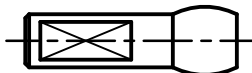


No de cde Bestell Nr Order Nr	Ø D mm	L mm	M1 mm	M2 mm
2290.0000	5	742	M3	M3
2291.0000	7	742	M5	M5
2293.0000	8	742	M5	M5
2294.0000	10	742	M6	M6
2295.0000	12	742	M6	M6
2296.0000	13	944	M7	M6





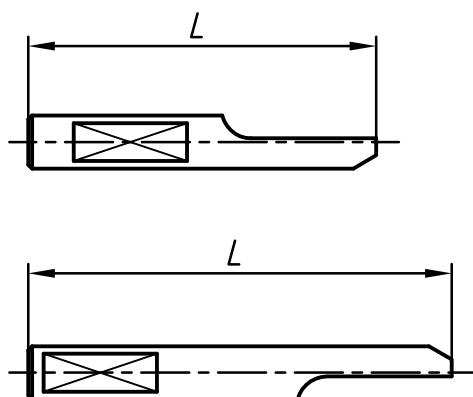
No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	Machines TORNOS TORNOS maschinen TORNOS machines	Matière Material Material	Ø D mm
2300.0002	13-PB	M-4	2	6
2300.0004	13-Y	M-7 R-10	2	8
2300.0005	12-CA	R-16 RR-20	1	10



Bece d'embrayage 13-Y  
 Einschaltnocken 13-Y  
 Engaging toes 13-Y

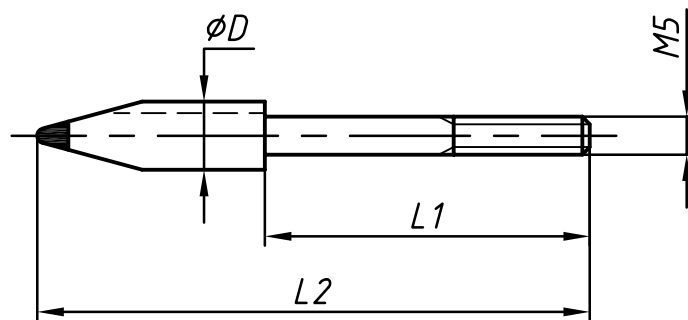
No de cde Bestell Nr Order Nr	Matière Material Material
2303.0000	2

Bece du levier cliquet 13-Y  
 Nocken des Klink-Hebels 13-Y  
 Toes of ratchet lever 13-Y

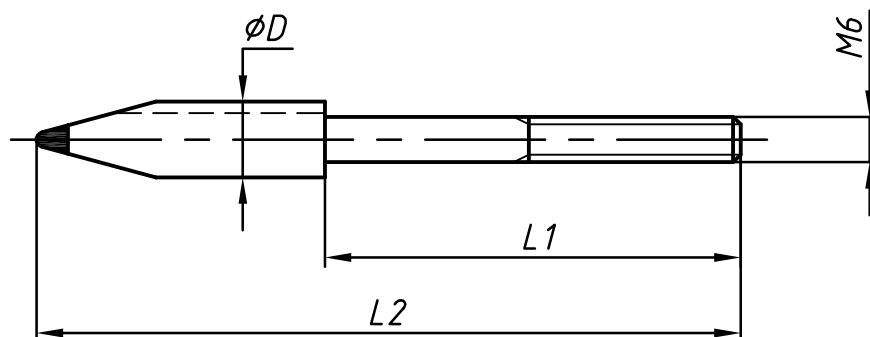


No de cde Bestell Nr Order Nr	Matière Material Material	L mm
2360.0000	2	46
2361.0000		55
2362.0000	1	46
2363.0000		55

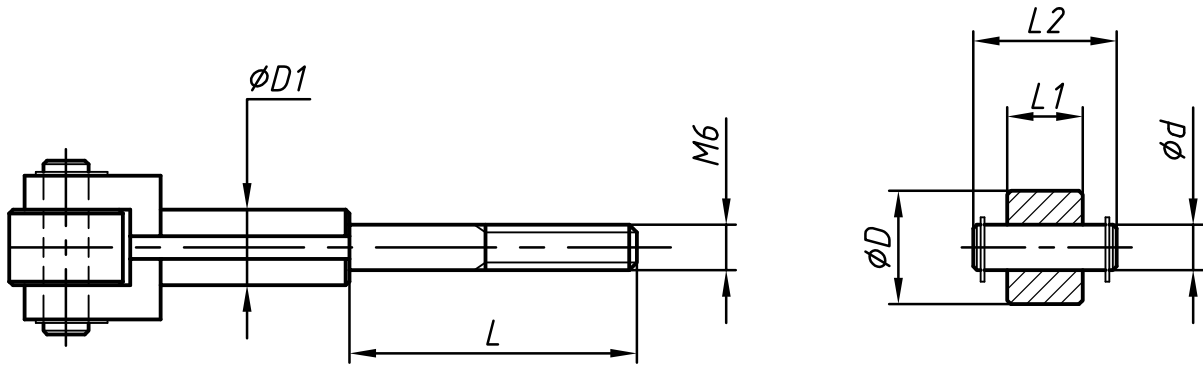
Bece levier d'embrayage 13-Y  
 Nocken des Kupplungs-Hebels 13-Y  
 Toes of engaging lever 13Y



No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D$ mm	L1 mm	L2 mm
2320.0000	RD-7397	9	27	60
2321.0000	12-X / 14-R	9	43	70



No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D$ mm	L1 mm	L2 mm
2323.0000	13-Y	10	45	82
2324.0000	12-JB	10	48	86

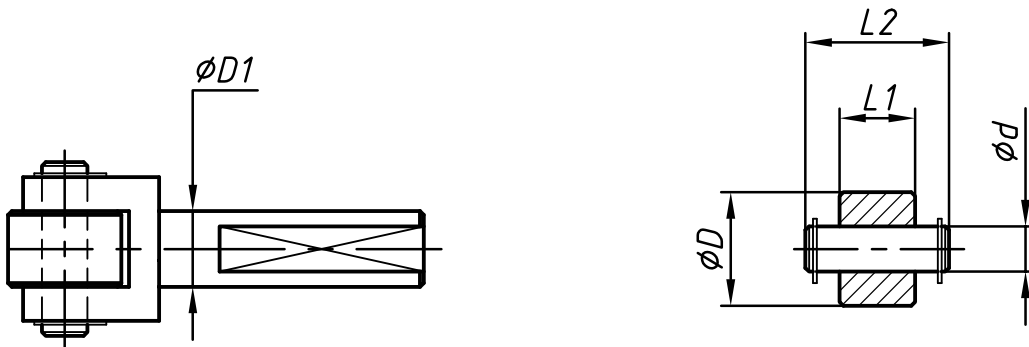


Bec pour 13-Y  
 Nocken für 13-Y  
 Toe for 13-Y

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D1$ mm	L mm
2333.0000	13-Y	10	38

Galet et axe  
 Rolle und Achse  
 Roller and axle

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D$ mm	$\phi d$ mm	L1 mm	L2 mm
2334.0000	13-Y	15	6	10	23



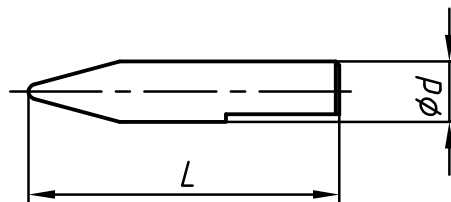
Bec pour 13-Y  
 Nocken für 13-Y  
 Toe for 13-Y

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D1$ mm
2333.0010	13-Y	10

Galet et axe  
 Rolle und Achse  
 Roller and axle

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D$ mm	$\phi d$ mm	L1 mm	L2 mm
2334.0000	13-Y	15	6	10	23

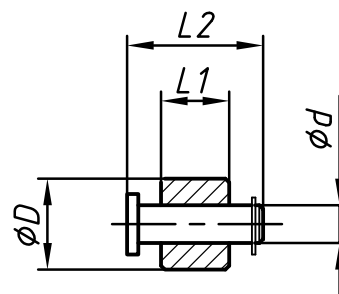
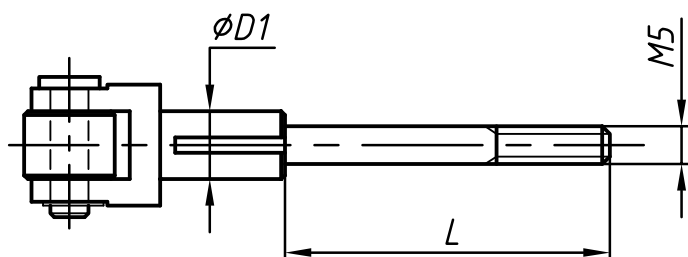
BECS DE NOMBRAGE A TOUCHE POUR APPAREILS TORNOS  
 SCHALT-NOCKEN FUER TORNOS APPARATE  
 INDEXING TOES FOR TORNOS ATTACHMENTS



No de cde Bestell Nr Order Nr	$\phi d$ mm	L mm
2333.0020	10	55

BECS DE NOMBRAGE A GALET POUR APPAREILS TORNOS  
 SCHALT-NOCKEN MIT ROLLE FUER TORNOS APPARATE  
 INDEXING TOES WITH ROLLER FOR TORNOS ATTACHMENTS

SERIE 2330

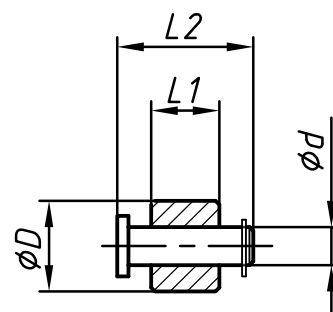
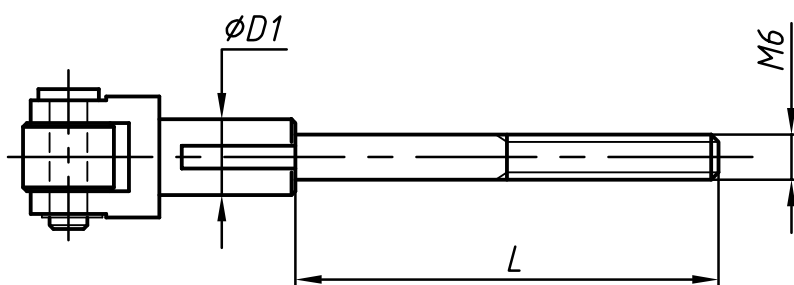


Bec pour 12-X 12-VB 12-CA  
 Nocken für 12-X 12-VB 12-CA  
 Toes for 12-X 12-VB 12-CA

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\varnothing D1$ mm	L mm
2335.0000	M-4 12-X	9	43
	M-7 12-VB		
	M-7 12-CA		

Galet et axe  
 Rolle und Achse  
 Roller and axle

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\varnothing D$ mm	$\varnothing d$ mm	L1 mm	L2 mm
2338.0000	M-4 12-X	12	5	9	18
	M-7 12-VB				
	M-7 12-CA				

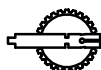


Bec pour 34-DA  
 Nocken für 34-DA  
 Toe for 34-DA

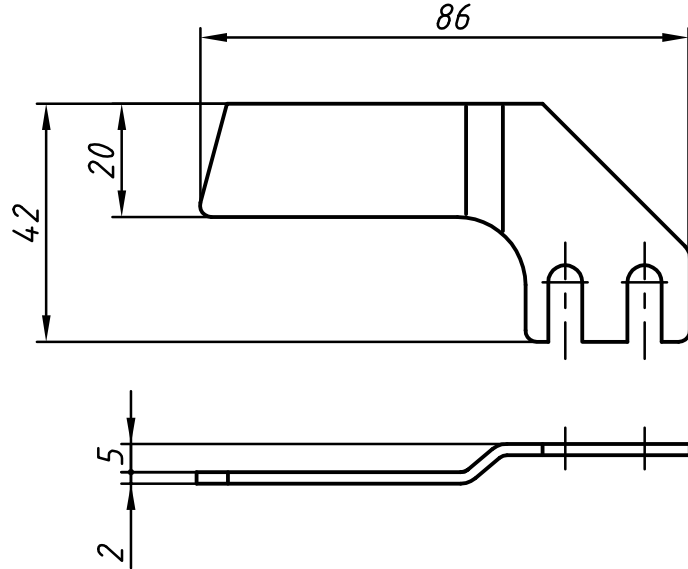
No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\varnothing D1$ mm	L mm
2337.0000	34-DA	10	56

Galet et axe  
 Rolle und Achse  
 Roller and axle

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\varnothing D$ mm	$\varnothing d$ mm	L1 mm	L2 mm
2338.0000	34-DA	12	5	9	18

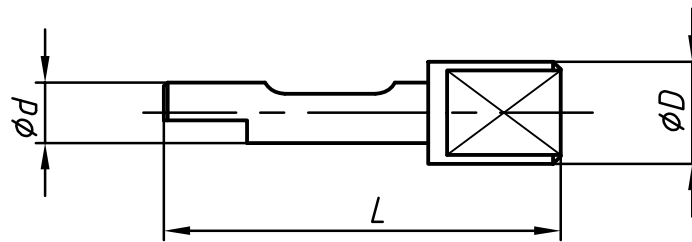


No de cde Bestell Nr Order Nr
2338.0007



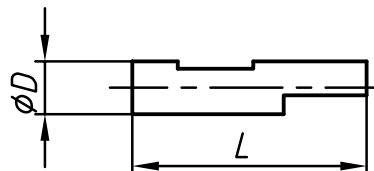
BEC D'APPAREIL  
 NOCKEN FUER APPARAT  
 TOES FOR ATTACHMENT

1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide

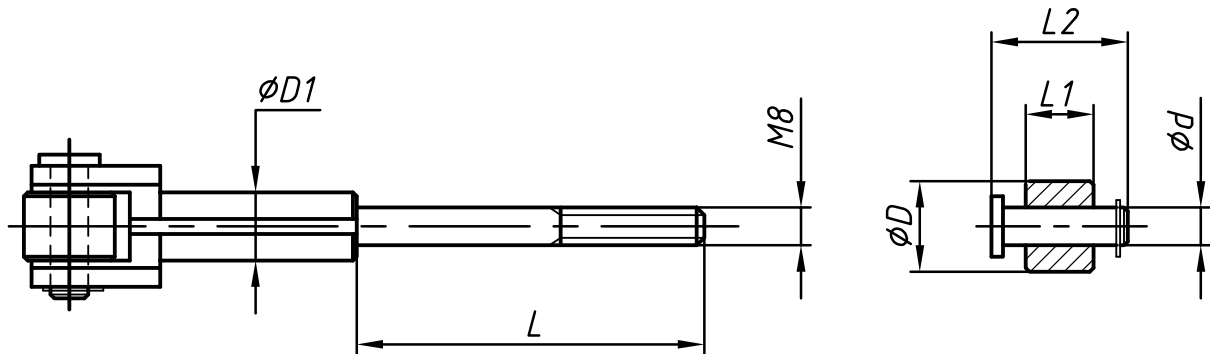


No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	Machines TORNOS TORNOS maschinen TORNOS machines	Matière Material Material	$\phi D$ mm	$\phi d$ mm	L mm
2338.0001	34-BA	M-4	1	10	7	37
2338.0002	34-BA	M-4	2	10	7	37
2338.0003	34-DA	M-7 R-10	1	13,5	8	52,5
2338.0004	34-DA	M-7 R-10	2	13,5	8	52,5

Bec pour 32-AA  
 Nocken für 32-AA  
 Toes for 32-AA



No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	Machines TORNOS TORNOS maschinen TORNOS machines	Matière Material Material	$\phi D$ mm	L mm
2338.0010	32-AA	M-7	2	7	31

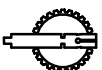


Bec pour combiné R-16 RR-20  
 Nocken für Kombinierten App. R-16 RR-20  
 Toe for combined attachment R-16 RR-20

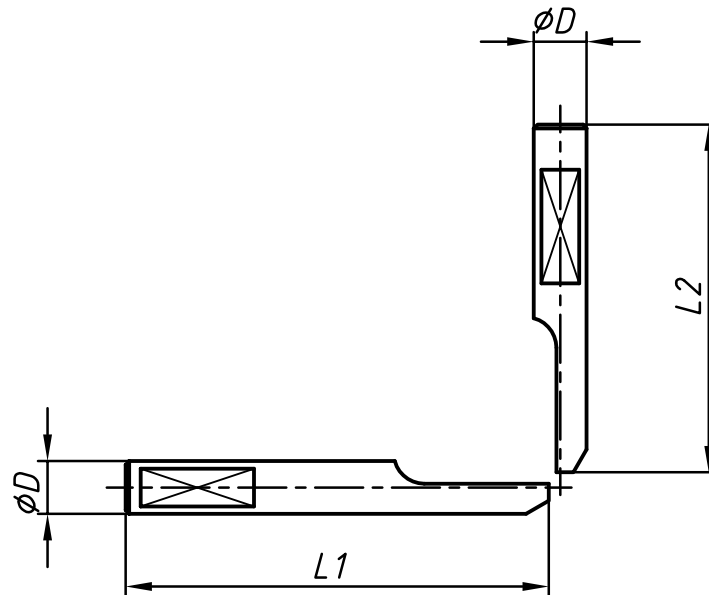
No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D1$ mm	L mm
2339.0000	13-CA	14	60

Galet et axe  
 Rolle und Achse  
 Roller and axle

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	$\phi D$ mm	$\phi d$ mm	L1 mm	L2 mm
2340.0000	13-CA	18	7	12	26



Becs levier d'embrayage  
 Nocken des Kupplungs-Hebels  
 Toe of engaging lever



Becs du levier cliquet  
 Nocken des Klink-Hebels  
 Toe of ratchet lever

1 = Acier - Stahl - Steel  
 2 = Métal dur - Hartmetall - Tungsten Carbide

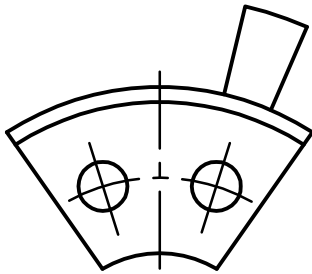
No de cde Bestell Nr Order Nr	Appareil Apparat Attachment	Ø D mm	L1 mm	L2 mm	Matière Material Material
2351.0000	Taraudeur M-4	5	33		2
2351.0000		5		33	
2352.0000	Combiné M-4	6	37		2
2353.0000		6		45	
2354.0000	13-G	6	40		2
2355.0000		6		46	
2356.0000	14-D	6	47		2
2357.0000		6		54	
2358.0000	13-OA	7	33		2
2359.0000		7		47	
2360.0000	13-Y	7	46		2
2361.0000		7		55	
2362.0000	13-Y	7	46		1
2363.0000		7		55	



PIECES POUR COMBINE 3 BROCHES TORNOS 12-U ET 13-Y  
 TEILE FUER KOMBINIERTEN 3-SPINDLIGEN APPARAT TORNOS 12-U UND 13-Y  
 PARTS FOR COMBINED 3-SPINDLE ATTACHMENT TORNOS 12-U AND 13-Y

12.12  
 SERIE 2370  
 2400  
 2410

Taquets du bec P133  
 Nocken P133  
 Toe P133



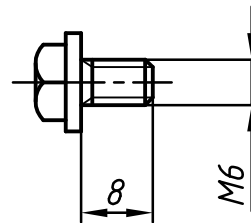
Bec de sûreté P126  
 Sicherheitsnocken P126  
 Safety toe P126

No de cde Bestell Nr Order Nr
2370.0000



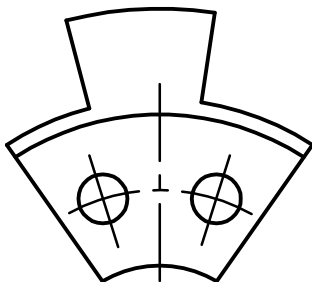
No de cde Bestell Nr Order Nr
2401.0001

Vis du bec  
 Nockenschraube  
 Toe screw



No de cde Bestell Nr Order Nr
2416.0001

Taquets du bec P133  
 Nocken P133  
 Toe P133



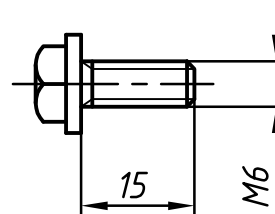
Bec d'embrayage  
 Einschalt-Nocken  
 Engaging toe

No de cde Bestell Nr Order Nr
2373.0000



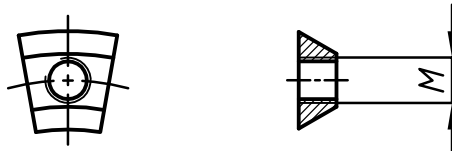
No de cde Bestell Nr Order Nr
2401.0001

Vis du bec  
 Nocken-Schraube  
 Toe screw



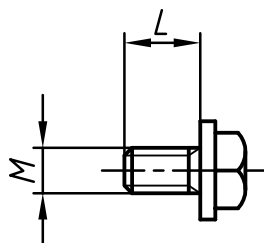
No de cde Bestell Nr Order Nr
2406.0000





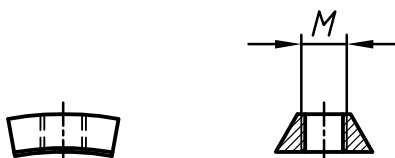
Taquets de nombrage P133  
 Schalt-Nocken P133  
 Indexing toes P133

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm
2400.0000	M-4	M5 x 0,75
2401.0000	M-7 MS-7 R-10	M6
2402.0000	R-16	M7
2403.0000	RR-20 MR-32 M-20 M-28	M8



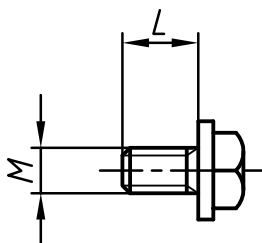
Vis pour taquets de nombrage  
 Schraube für Schaltnocken  
 Screw for indexing-toes

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm	L mm
2404.0000	M-4	M5 x 0,75	14
2405.0000	M-7 MS-7 R-10	M6	13
2406.0000	M-7 MS-7 R-10	M6	15
2407.0000	R-16	M7	17
2408.0000	RR-20 MR-32 M-20 M-28	M8	20



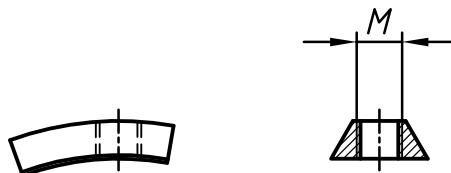
Taquets de perçage P134  
 Bohr-Nocken P134  
 Drilling toe P134

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm
2410.0000	M-4	M5 x 0,75
2411.0000	M-7 MS-7 R-10	M6
2412.0000	R-16	M7
2413.0000	RR-20 MR-32 M-20 M-28	M8
2414.0000	Appareil 34-DA	M6



Vis pour taquets de perçage  
 Schraube für Bohr-Nocken  
 Screw for drilling toe

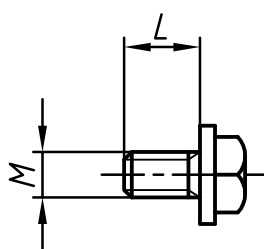
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm	L mm
2415.0000	M-4	M5 x 0,75	8
2416.0000	M-7 MS-7 R-10 34-DA	M6	10
2417.0000	M-7 MS-7 R-10	M6	11
2418.0000	R-16	M7	12
2419.0000	RR-20 MR-32 M-20 M-28	M8	18



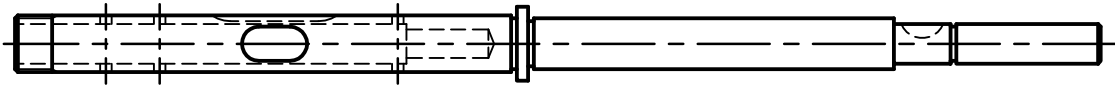
Taquets de perçage rallongés P134  
 Verlängerte Bohr-Nocken P134  
 Extended drilling toes P134

No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm
2430.0000	M-7 MS-7 R-10	M6

Vis pour taquets de perçage rallongés  
 Schraube für verlängerte Bohrnocken  
 Screw for extended drilling toes



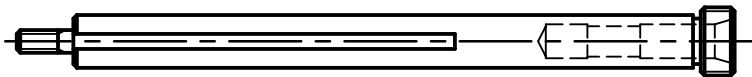
No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	M mm	L mm
2431.0000 (2416.0000)	M-7 MS-7 R-10	M6	10
2432.0000 (2417.0000)	M-7 MS-7 R-10	M6	11



Arbre central  
Zentralwelle  
Central shaft

No de cde Bestell Nr Order Nr	Appareil Apparat Attachment
2441.0000	13-Y

Roulement des broches  
Spindelkugellager  
Spindle bearing



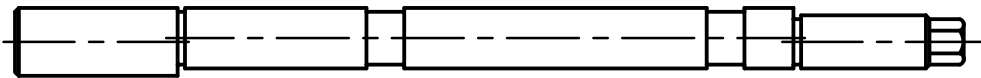
Broche de perçage  
Bohrspindel  
Drilling spindle

No de cde Bestell Nr Order Nr
2443.0000

Broche de taraudage  
Gewinbeschneidspindel  
Tapping spindle

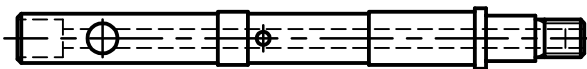
No de cde Bestell Nr Order Nr
2442.0000

No de cde Bestell Nr Order Nr
2444.0000



Arbre excentrique  
Excenterwelle  
Excenter shaft

No de cde Bestell Nr Order Nr
2445.0000



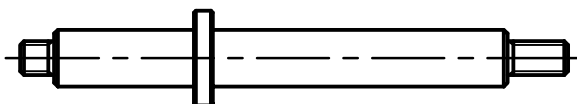
Tige d'embrayage  
Einschaltstift  
Engagement pin

No de cde Bestell Nr Order Nr
2446.0000



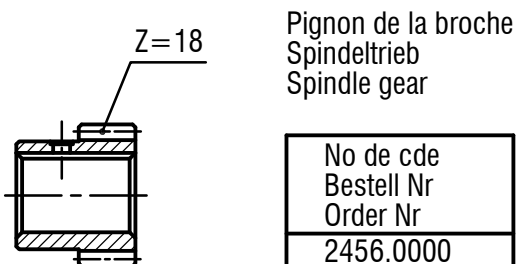
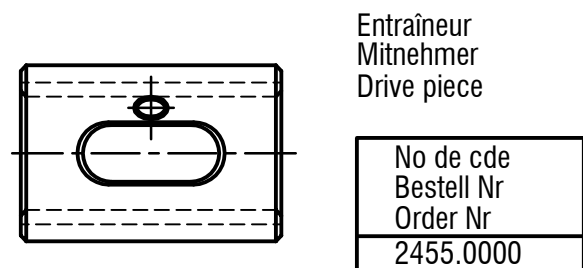
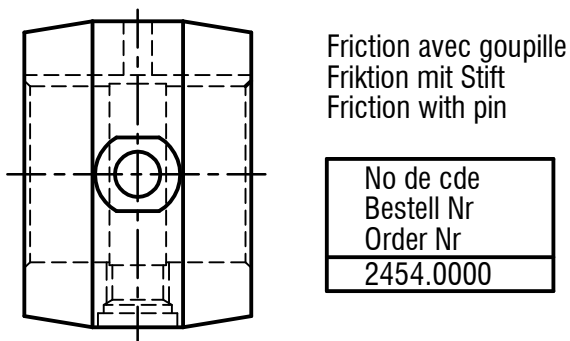
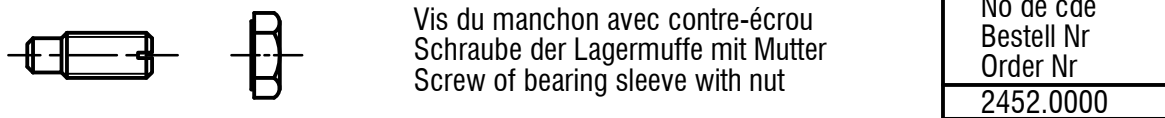
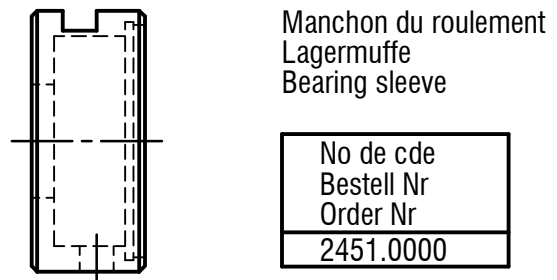
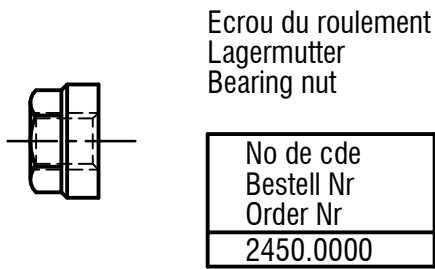
Ressort  
Feder  
Spring

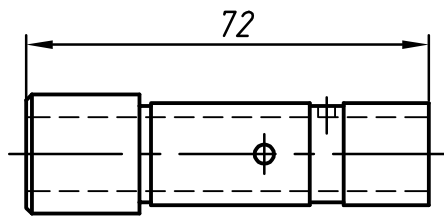
No de cde Bestell Nr Order Nr
2447.0000



Axe du levier d'indexage  
Schalthebelachse  
Axis of indexing lever

No de cde Bestell Nr Order Nr
2448.0000





Perçage  
Bohren  
Drilling

Broche 1+2  
Spindel 1+2  
Spindle 1+2

Taraudage  
Gewindebohren  
Tapping

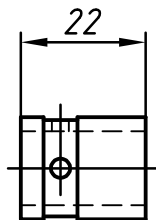
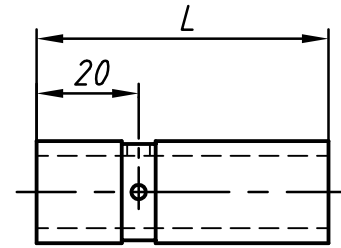
Broche 3  
Spindel 3  
Spindle 3

Avant  
Vordere  
Front

Boîtes en bronze avant  
Vordere Bronze-Büchsen  
Front bronze bushes

No de cde Bestell Nr Order Nr
2460.0000

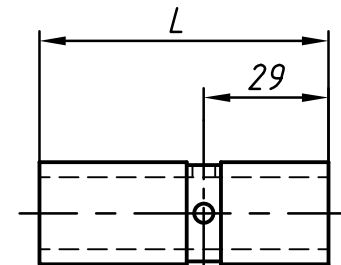
No de cde Bestell Nr Order Nr	L mm
2461.0000	52



Boîtes en bronze arrière  
Hintere Bronze-Büchsen  
Rear bronze bushes

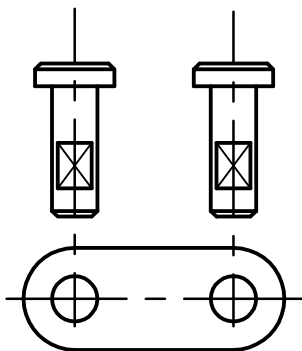
Broche 1+2+3  
Spindel 1+2+3  
Spindle 1+2+3

No de cde Bestell Nr Order Nr
2462.0000



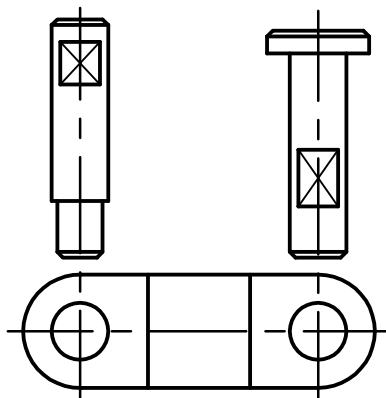
Boîte arbre central  
Zentralwellebüchse  
Center shaft bushing

No de cde Bestell Nr Order Nr	L mm
2463.0000	52



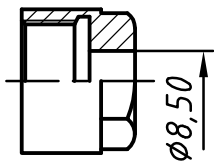
Bielle d'avance broche avec axes  
Verbindungstück Vorschubhebel mit Achsen  
Spindle advance part with shafts

No de cde Bestell Nr Order Nr
2464.0000



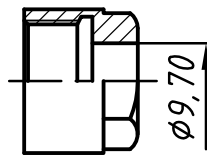
Bielle de nombrage avec axes  
Verbindungstück mit Achsen  
Indexing part with shafts

No de cde Bestell Nr Order Nr
2465.0000



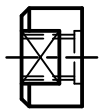
Ecrou avant de la broche  
 Vordere Mutter der Spindel  
 Front nut of spindle

No de cde Bestell Nr Order Nr
2466.0000



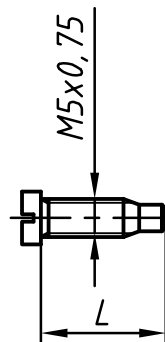
Ecrou pour rallonge F-8  
 Mutter für Verlaengerung F-8  
 Nut for extension part F-8

No de cde Bestell Nr Order Nr
2467.0000



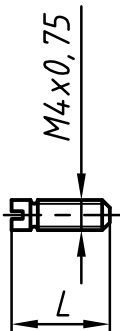
Ecrou arrière de la broche  
 Hintere Mutter der Spindel  
 Back nut of spindle

No de cde Bestell Nr Order Nr
2468.0000



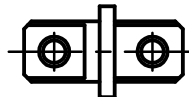
Vis à pivot pour boîtes  
 Schrauben zu Lagerbüchsen  
 Screw of bearing bushes

No de cde Bestell Nr Order Nr	L mm
2469.0000	10,5
2470.0000	13,5
2471.0000	19,5
2472.0000	29,5



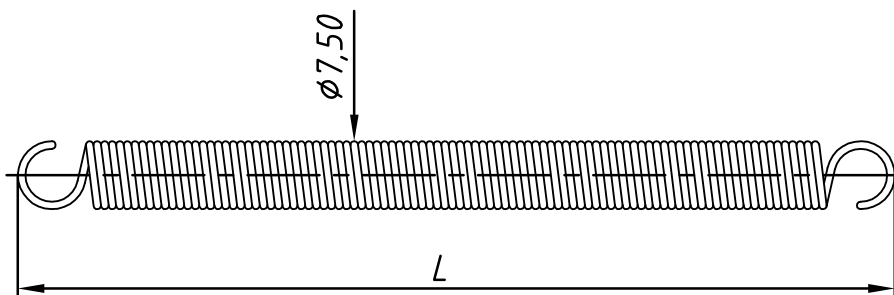
Vis attache ressort  
 Feder Anhängeschraube  
 Spring fastener screw

No de cde Bestell Nr Order Nr	L mm
2473.0000	13



Attache ressort des broches  
 Federhaken der Spindeln  
 Spring fastener of spindles

No de cde Bestell Nr Order Nr
2474.0000



Ressorts des broches  
 Spindelfeder  
 Spindle springs

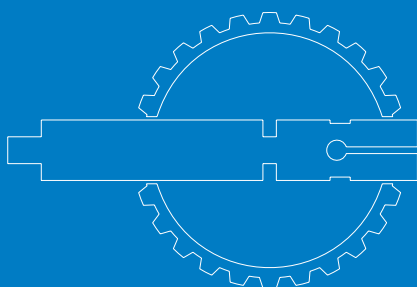
Broche de perçage  
 Bohrspindel  
 Drilling spindle

Broche de taraudage  
 Gewindespindel  
 Threading spindle

No de cde Bestell Nr Order Nr	L mm
2475.0000	215

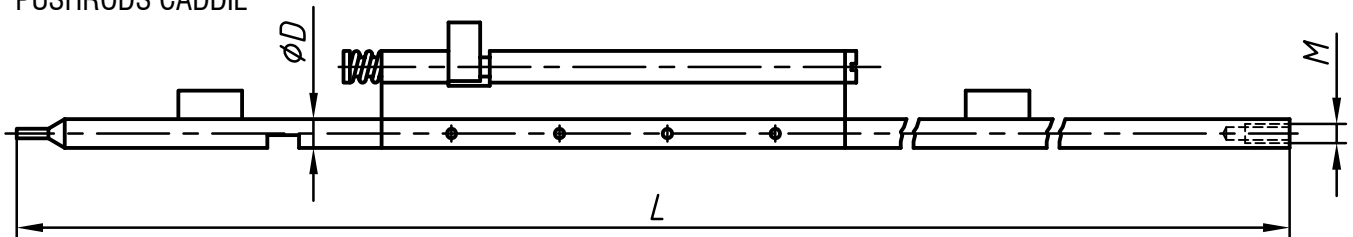
No de cde Bestell Nr Order Nr	L mm
2476.0000	175





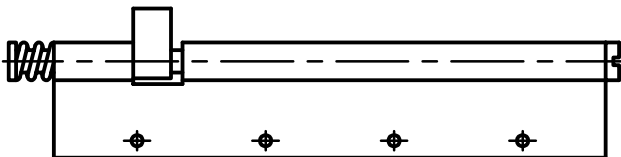
ANDRÉ FREI & FILS SA

POUSSETTES CADDIE  
 STOSS-STANGEN CADDIE  
 PUSHRODS CADDIE



No de cde Bestell Nr Order Nr	Ø D mm	L mm	M mm	à gauche Links Left	Capacité Durchlass Capacity
5100.0000	8	936		M5	Ø4,00 - 6,50
5101.0000	9	926		M6	Ø6,50 - 8,50
5102.0000	10	926		M6	Ø7,50 - 9,50
5103.0000	12	926		M6	Ø9,50 - 10,50
5104.0000	15	912		M7	Ø10,50 - 13,50

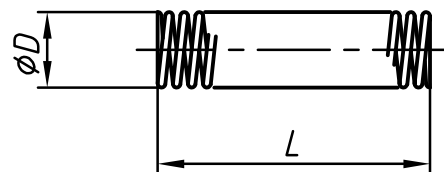
DRAPEAU CADDIE  
 STOSS-STANGENFAHNE CADDIE  
 PUSHROD FLAG CADDIE



No de cde Bestell Nr Order Nr	Capacité Durchlass Capacity
5107.0850	Ø4,00 - 6,50
5107.0950	Ø6,50 - 8,50
5107.1050	Ø7,50 - 9,50
5107.1250	Ø9,50 - 10,50
5107.1550	Ø10,50 - 13,50

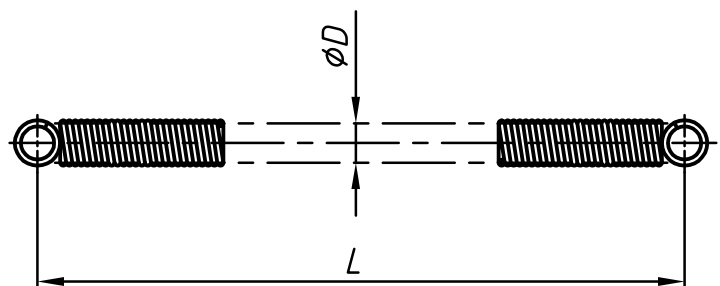
RESSORTS DE COMPRESSION CADDIE  
 DRUCKFEDERN CADDIE  
 COMPRESSION SPRINGS CADDIE

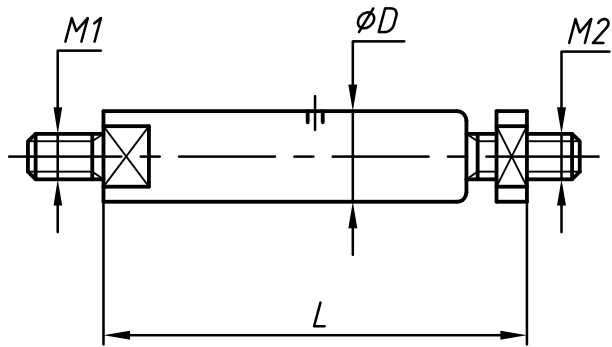
No de cde Bestell Nr Order Nr	Ø D mm	L mm
5108.0000	9	13



RESSORTS DE TORSION CADDIE  
 TORSIONSFEDERN CADDIE  
 TORSION SPRINGS CADDIE

No de cde Bestell Nr Order Nr	Ø D mm	L mm
5109.0000	6	84

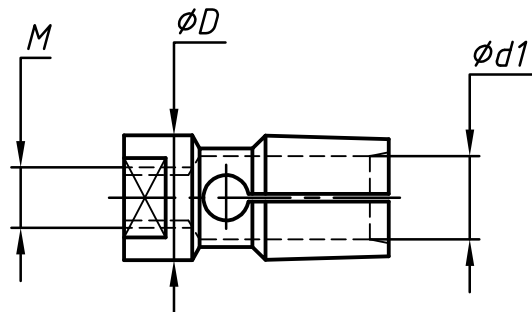




EMBOUTS TOURNANTS POUR RAVITAILLEURS CADDIE  
 DREHENDE ENDSTUECKE FUER CADDIE STANGENLADER  
 REVOLVING END-PIECES FOR CADDIE BAR-LOADER

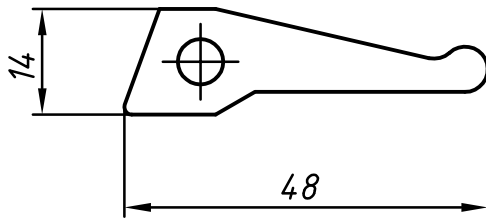
No de cde Bestell Nr Order Nr	Ø D mm	L mm	M 1 mm	à gauche Links Left	M 2 mm	à gauche Links Left
5110.0000	8,50	46	M5		M5	
5111.0000	9,50	53	M6		M6	
5112.0000	10,50	53	M6		M6	
5113.0000	12	53	M6		M6	
5114.0000	15	70	M7		M6	
5115.0000	16	72	M8		M8	

PINCES POUR RAVITAILLEURS CADDIE  
 KLEMMZANGEN FUER CADDIE STANGENLADER  
 CLAMPING FINGERS FOR CADDIE BAR-LOADER

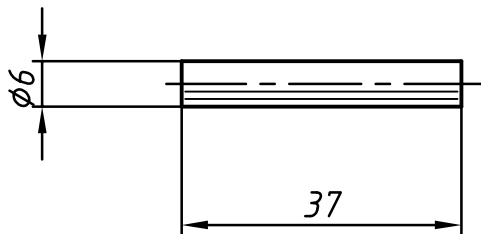


No de cde Bestell Nr Order Nr	Ø D mm	Alésage Bohrung Bore	Ø d1 mm	Ecarts Abstand Distance	mm	M mm	à gauche Links Left
5120.0000	8,50	2 - 7		0,50 - 0,50		M5	
5121.0000	9,50	2 - 8		0,50 - 0,50		M6	
5122.0000	10,50	3 - 9		0,50 - 0,50		M6	
5123.0000	12	4 - 10,5		0,50 - 0,50		M6	
5124.0000	13,50	4 - 12		0,50 - 0,50		M6	
5125.0000	15	5 - 13		0,50 - 0,50		M6	
5126.0000	16,50	5 - 14,5		0,50 - 0,50		M8	

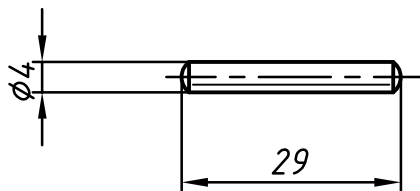
BARILLET AS-14 CHIENS DE SERRAGE ET AXES  
 SPINDELtrommel AS-14 SPANNKNAGEN UND AXSEN  
 BARREL AS-14 TOGGLES AND AXLES



No de cde Bestell Nr Order Nr
5160.0000

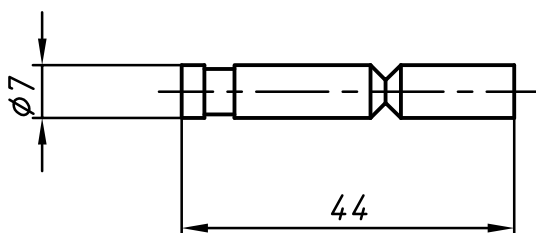


No de cde Bestell Nr Order Nr
5161.0000



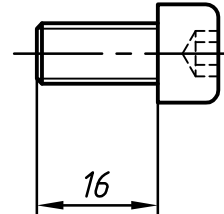
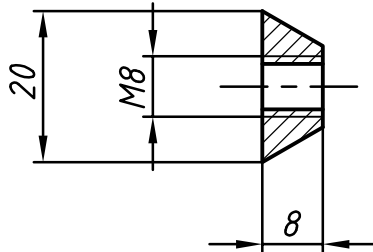
No de cde Bestell Nr Order Nr
5162.0000

GOUPILLE DE SECURITE AS-14  
 SICHERHEITSSTIFT AS-14  
 SECURITY PIN AS-14



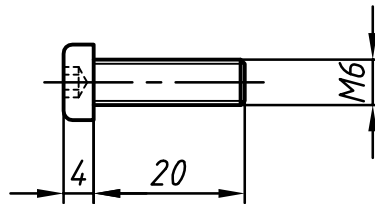
No de cde Bestell Nr Order Nr
5163.0000

TAQUET ET VIS AS-14  
 NOCKEN UND SCHRAUBE AS-14  
 TOE AND SCREW AS-14



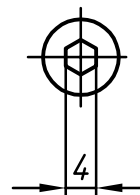
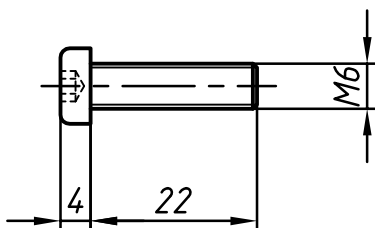
No de cde Bestell Nr Order Nr
5170.0000

No de cde Bestell Nr Order Nr
5170.0001

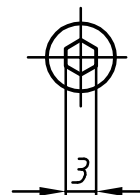
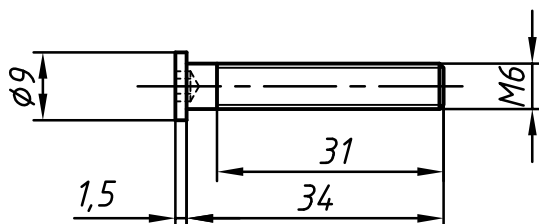


No de cde Bestell Nr Order Nr
5171.0000

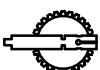
VIS POUR CADDIE  
 SCHRAUBE FUER CADDIE  
 SCREW FOR CADDIE

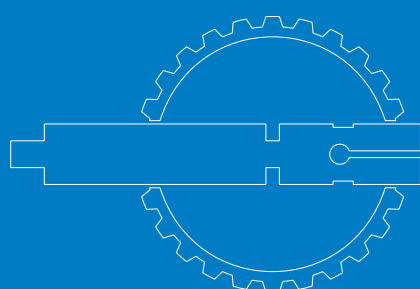


No de cde Bestell Nr Order Nr
5172.0000



No de cde Bestell Nr Order Nr
5173.0000

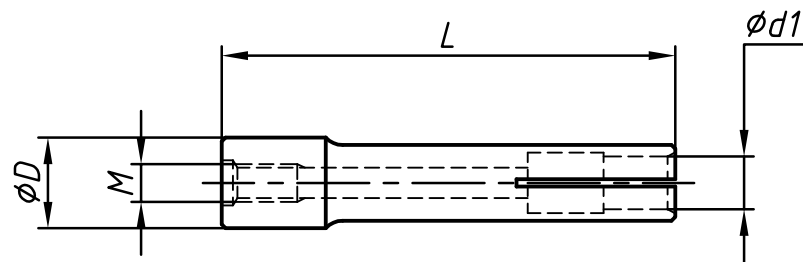
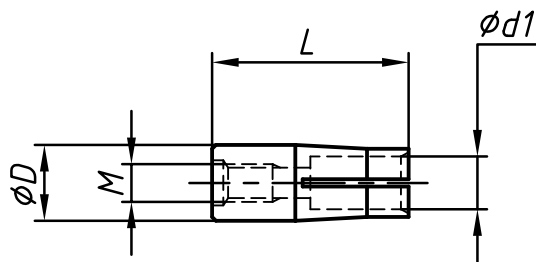




ANDRÉ FREI & FILS SA

Pince courte  
Kurze Zange  
Short collet

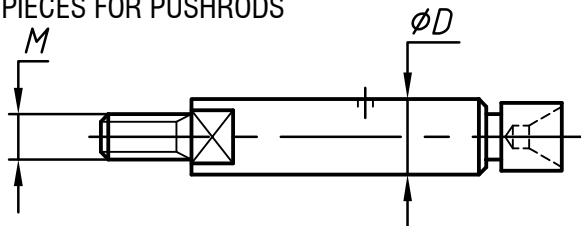
Pince longue  
Lange Zange  
Long collet



MULTIBAR BECHLER

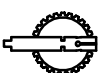
No de cde Bestell Nr Order Nr	Type Typ Type	$\phi D$ mm	Alésage Bohrung Bore	$\phi d1$ mm	Ecart Abstand Distance	L mm	M mm
6100.0000	320	4,5	0,80 - 3,50		0,10 - 0,10	22	M2,5
6101.0000	3000-H	5	1,00 - 4,00		0,10 - 0,10	22	M3
6102.0000	65-5,5	5,5	1,00 - 4,50		0,50 - 0,50	22	M3,5
6103.0000	65 / 73	7	2,00 - 5,50		0,10 - 0,10	22	M4
6104.0000	65 / 73	10	3,00 - 8,00		0,10 - 0,10	26	M5
6105.0000	65 / 73	12	4,00 - 10,00		0,50 - 0,50	26	M5
6106.0000	12 longue	12	6,00 - 10,00		0,50 - 0,50	60	M5
6108.0000	16 courte	16	5,00 - 14,00		0,50 - 0,50	30	M6
6109.0000	16 longue	16	5,00 - 14,00		0,50 - 0,50	60	M6
6110.0000	20 courte	20	6,00 - 17,50		0,50 - 0,50	30	M8x1
6111.0000	20 longue	20	6,00 - 17,50		0,50 - 0,50	60	M8x1

EMBOUTS TOURNANTS SIMPLES POUR POUSSE-BARRES  
EINFACHE DREHENDE ENDSTUECKE FUER STOSS-STANGEN  
SIMPLE REVOLVING END-PIECES FOR PUSHRODS



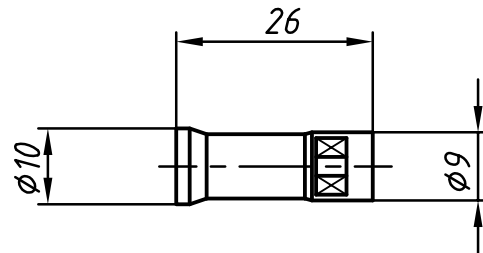
No de cde Bestell Nr Order Nr	$\phi D$ mm	M mm
1150.0000	4,50	M 3,5
1151.0000	7	M 5
1152.0000	10	M 6
1153.0000	12	M 6
1154.0000	14	M 8
1155.0000	16	M 10
1156.0000	20	M 10
1157.0000	25	M 12

Autres dimensions sur demande  
Weitere Masse auf verlangen  
Other sizes on request



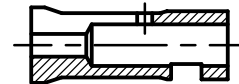
Ebauche type A - AS - AR 330 C  
 Rohling Typ A - AS - AR 330 C  
 Blank type A - AS - AR 330 C

No de cde Bestell Nr Order Nr
6120.0000



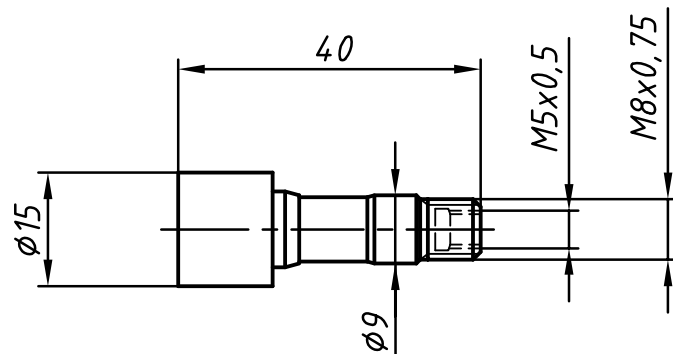
Finition  
 Fertiger Teil  
 Finished part

No de cde Bestell Nr Order Nr
6121.0000



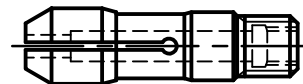
Ebauche type AR-10 726  
 Rohling Typ AR-10 726  
 Blank type AR-10 726

No de cde Bestell Nr Order Nr
6122.0000



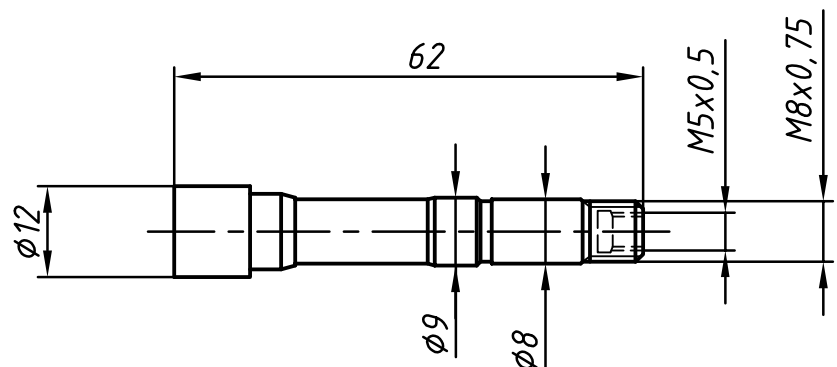
Finition  
 Fertiger Teil  
 Finished part

No de cde Bestell Nr Order Nr
6123.0000



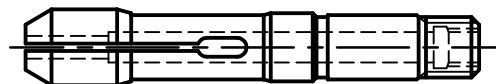
Ebauche type AR-10 725  
 Rohling Typ AR-10 725  
 Blank type AR-10 725

No de cde Bestell Nr Order Nr
6124.0000



Finition  
 Fertiger Teil  
 Finished part

No de cde Bestell Nr Order Nr
6125.0000





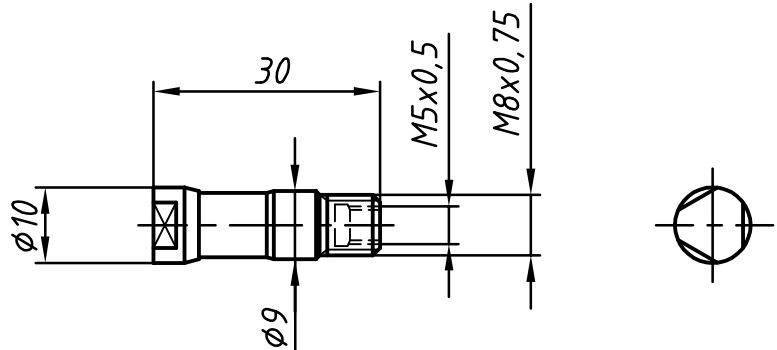
PINCES POUR TRANSPORTEUR BECHLER  
 ZANGEN FUER TRANSPORTER BECHLER  
 COLLETS FOR TRANSPORTING ARM BECHLER

12.12

SERIE 6120  
 6130

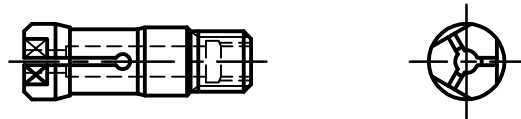
Ebauche type AR-10 625  
 Rohling Typ AR-10 625  
 Blank type AR-10 625

No de cde Bestell Nr Order Nr
6126.0000



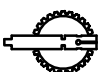
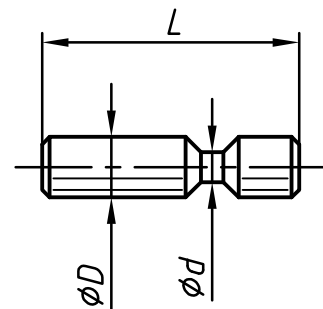
Finition  
 Fertiger Teil  
 Finished part

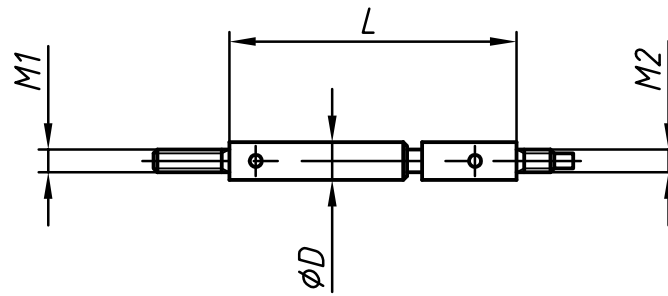
No de cde Bestell Nr Order Nr
6127.0000



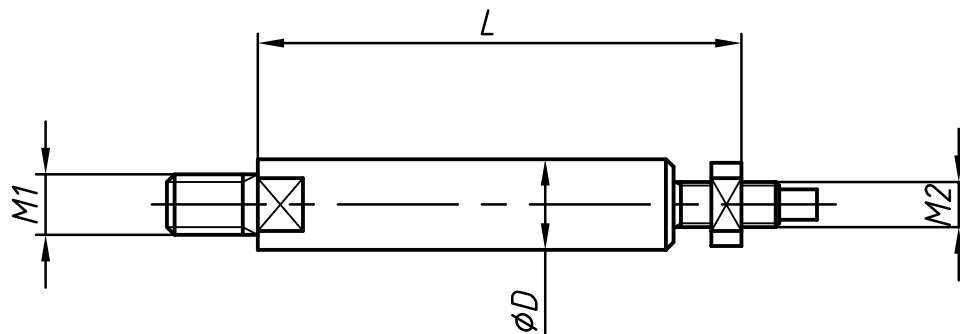
BECS DE SECURITE POUR TRANSPORTEUR BECHLER  
 SICHERHEITS-NOCKEN FUER BECHLER TRANSPORTER  
 SAFETY TOES FOR BECHLER TRANSPORTING ARM

No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	$\phi d$ mm
6128.0000	8	34	4
6129.0000	8	34	4,5
6130.0000	10	35	4
6131.0000	10	35	4,5

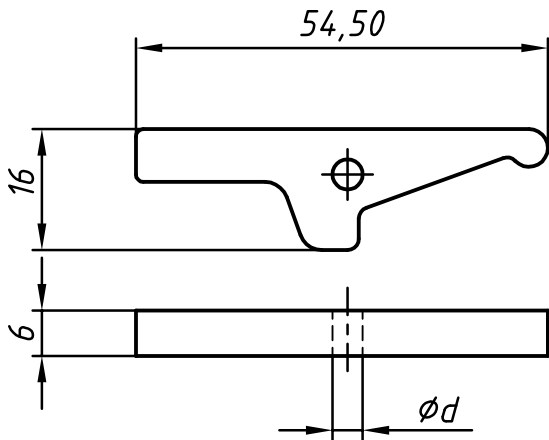




No de cde Bestell Nr Order Nr	$\varnothing D$ mm	L mm	M1 mm	M2 mm	Multibar
6140.0000	4,5	37,5	M3	M2,5	320 / 65
6141.0000	5	58,5	M3,5	M3	3000-H / 73
6142.0000	5,5	37,5	M4	M3,5	5,5 / 65

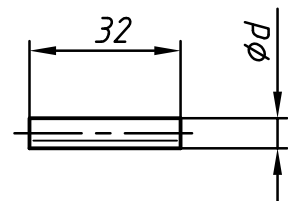


No de cde Bestell Nr Order Nr	$\varnothing D$ mm	L mm	M1 mm	M2 mm	Multibar
6143.0000	7	38,5	M5	M4	7 Type 65 court
6144.0000	7	61	M5	M4	3000/7 Type 73 long
6145.0000	10	59	M6	M5	10 Type 65 court
6146.0000	10	75	M6	M5	3000/10 Type 73 long
6147.0000	12	64	M8	M5	12 Type 65 court BR - 3000/12 Type 73 BR
6148.0000	12	94	M8	M5	12 Type 65 long AR - 3000/12 Type 73 AR
6153.0000	16	84	M12	M6	16
6154.0000	20	84	M16	M8x1	20

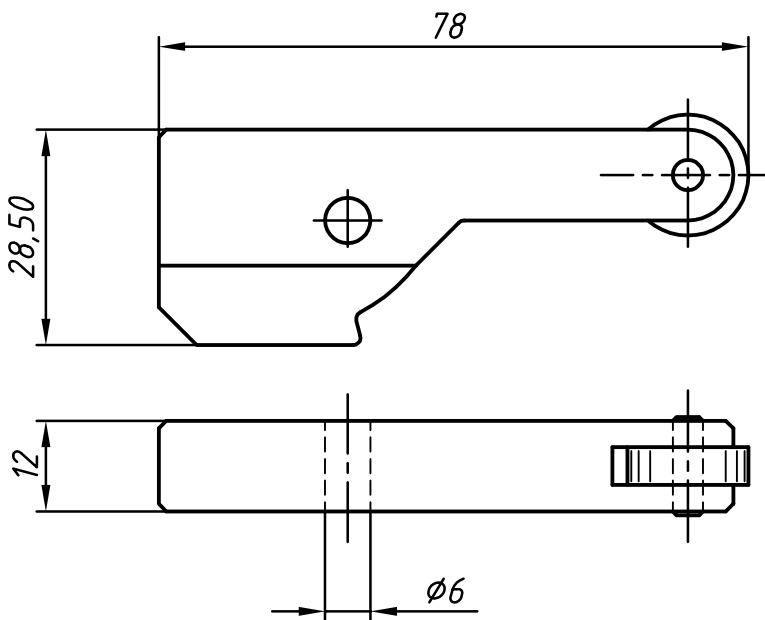


AS-7 / AR-10

No de cde Bestell Nr Order Nr	Ø d mm
6160.0000	3
6161.0000	4

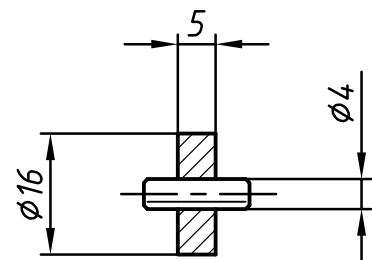


No de cde Bestell Nr Order Nr	Ø d mm
6162.0000	3
6163.0000	4

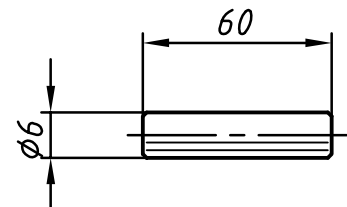


BR-20

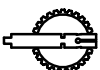
No de cde Bestell Nr Order Nr
6164.0000



No de cde Bestell Nr Order Nr
6165.0000

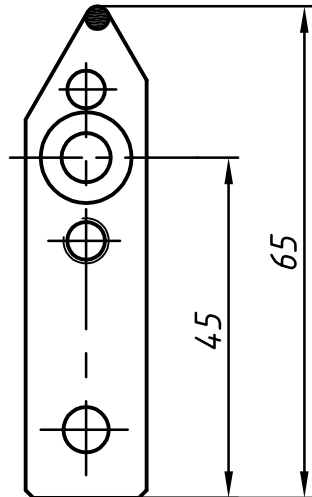


No de cde Bestell Nr Order Nr
6166.0000

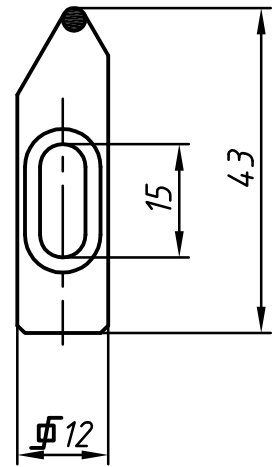


Bec de base court  
 Kurzer Nocken  
 Short toe

No de cde Bestell Nr Order Nr
6170.0000

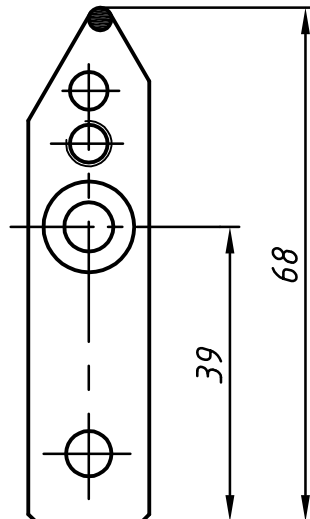


No de cde Bestell Nr Order Nr
6170.0001

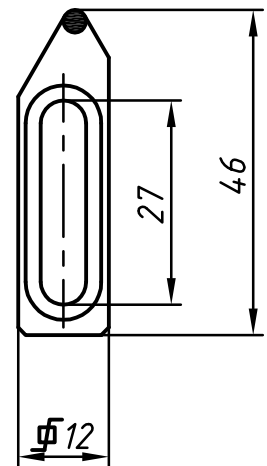


Bec de base moyen  
 Mittlerer Nocken  
 Average toe

No de cde Bestell Nr Order Nr
6171.0000

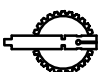
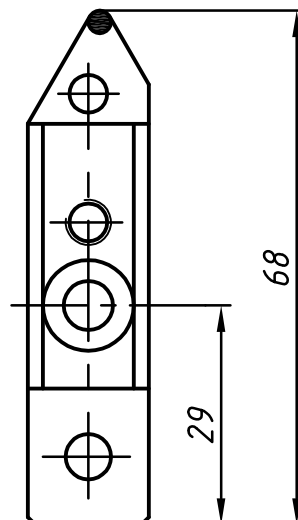


No de cde Bestell Nr Order Nr
6171.0001



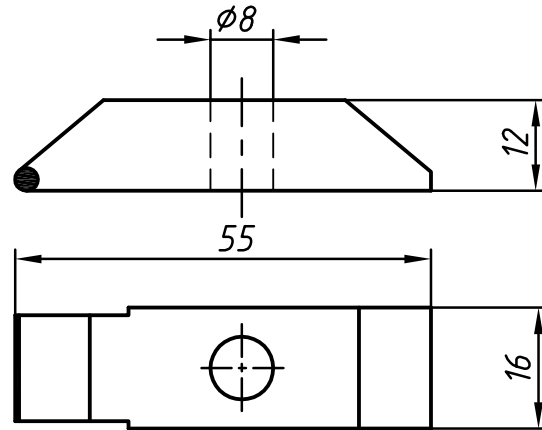
Base longue  
 Lange Basis Nocken  
 Long base toe

No de cde Bestell Nr Order Nr
6172.0000



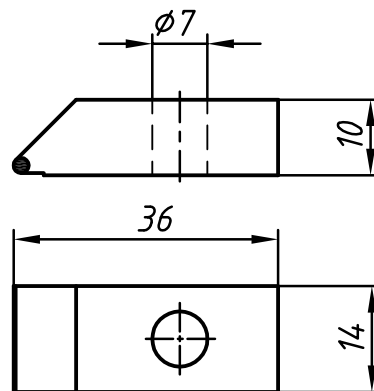
Bec pour poupée B - BE - BR  
 Nocken für Spindelstock B - BE - BR  
 Toe for headstock B - BE - BR

No de cde
Bestell Nr
Order Nr
6173.0000



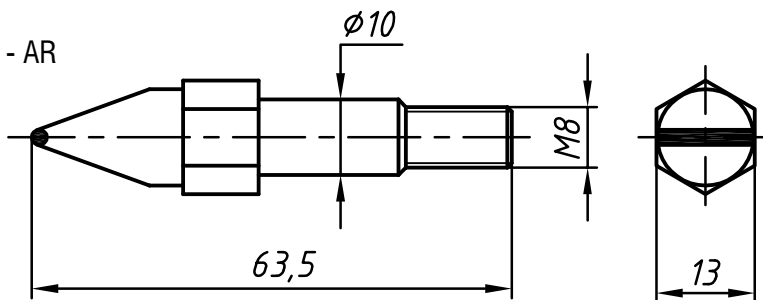
Bec pour poupée AE - AS - AR  
 Nocken für Spindelstock AE - AS - AR  
 Toes for headstock AE - AS - AR

No de cde
Bestell Nr
Order Nr
6174.0000



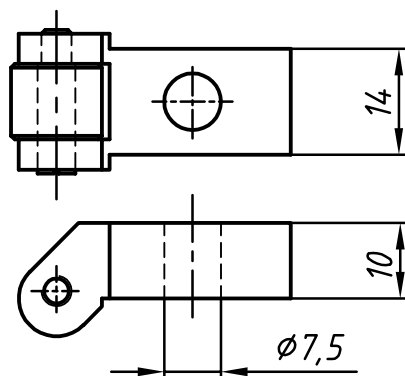
Bec pour vertical AE - AS - AR  
 Nocken für Stahlhalter-Ständer AE - AS - AR  
 Toe for tool-holder post AE - AS - AR

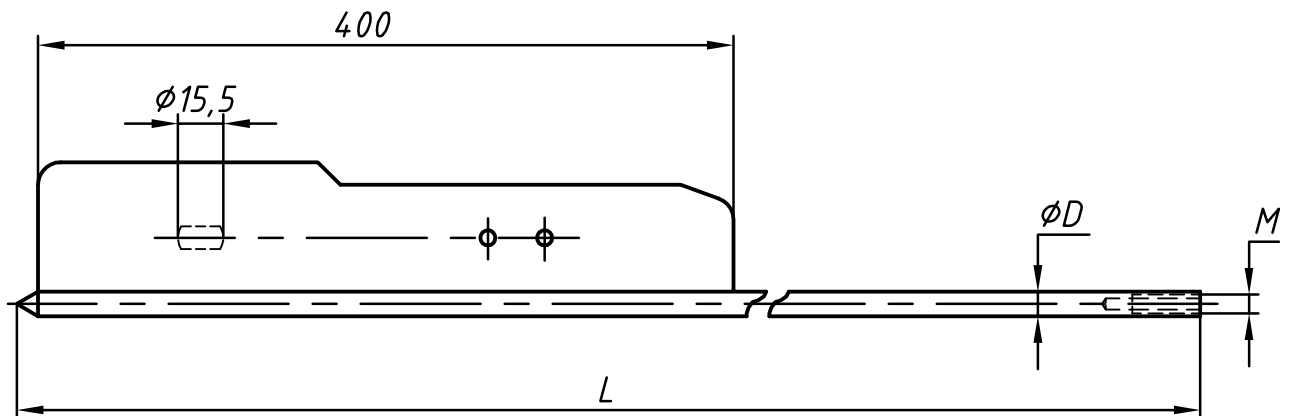
No de cde
Bestell Nr
Order Nr
6175.0000



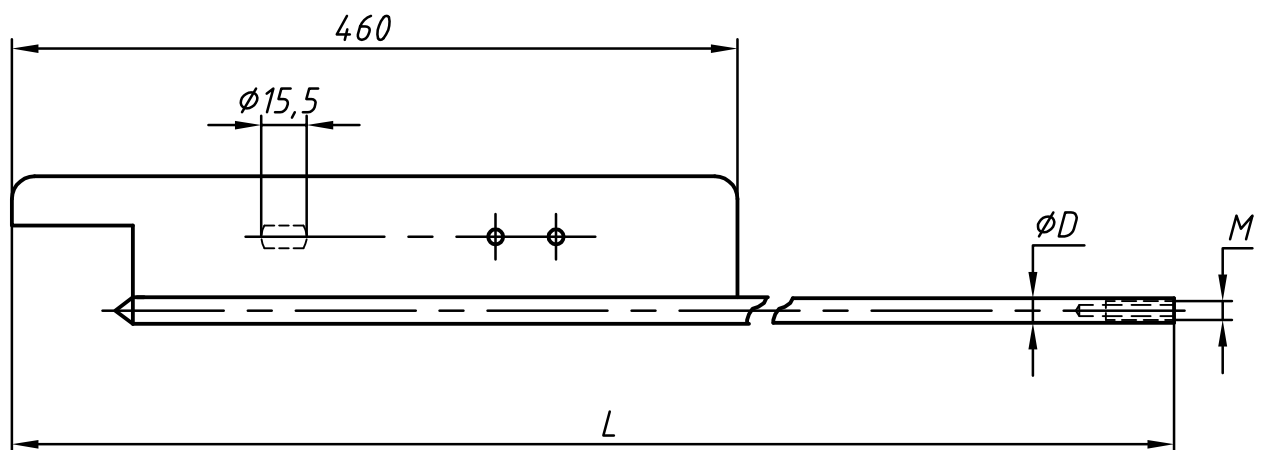
Bec à galet pour vertical AE - AS - AR  
 Rollen-Nocken für Stahlhalter-Ständer AE - AS - AR  
 Roller-toe for tool-holder post AE - AS - AR

No de cde
Bestell Nr
Order Nr
6176.0000





No de cde Bestell Nr Order Nr	̸ D mm	L mm	M mm
6180.0000	4,50	1033	M3
6181.0000	5,50	1033	M4
6182.0000	7	980	M5
6183.0000	7	1028	M5
6184.0000	10	948	M6
6185.0000	10	1008	M6

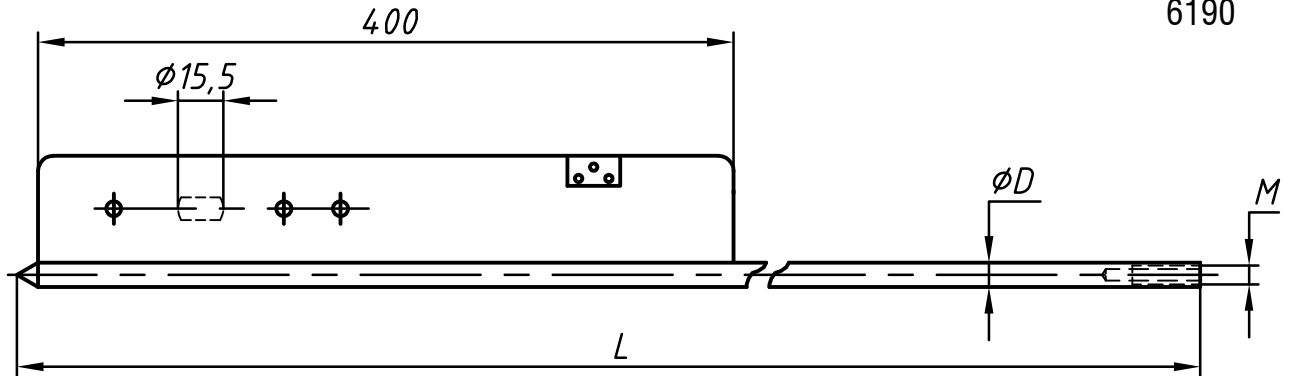


No de cde Bestell Nr Order Nr	̸ D mm	L mm	M mm
6186.0000	7	1303	M5
6187.0000	10	1278	M6

POUSSETTES MULTIBAR A CHAINE TYPE 65 POUR TOURS AUTOMATIQUES BECHLER  
 MULTIBAR STOSS-STANGEN MIT KETTE TYP 65 FUER BECHLER AUTOMATEN  
 MULTIBAR PUSHRODS WITH CHAIN TYPE 65 FOR BECHLER AUTOMATICS

12.12

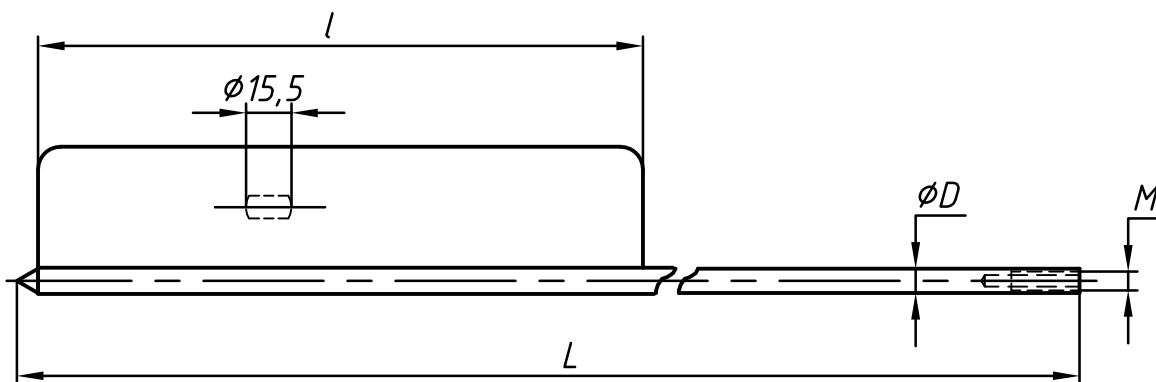
SERIE 6180  
 6190



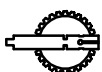
No de cde Bestell Nr Order Nr	Ø D mm	L mm	M mm
6188.0000	4,50	1033	M3
6189.0000	5,50	1033	M4
6190.0000	7	1018	M5
6191.0000	7	1028	M5
6192.0000	7	1305	M5
6193.0000	10	1018	M6
6194.0000	16	1266	M12
6195.0000	20	1273	M16

POUSSETTES MULTIBAR POUR TOURS AUTOMATIQUES BECHLER AR ET BR  
 MULTIBAR STOSS-STANGEN FUER BECHLER AUTOMATEN AR UND BR  
 MULTIBAR PUSHRODS FOR BECHLER AUTOMATICS AR AND BR

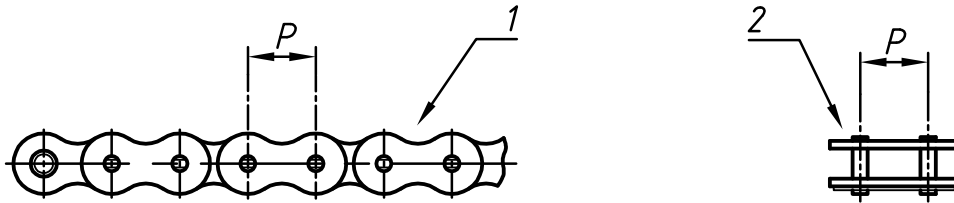
SERIE 6200



No de cde Bestell Nr Order Nr	Machines BECHLER BECHLER Maschinen BECHLER machines	Ø D mm	l mm	L mm	M mm
6200.0000	AR / 3000 H	5	160	733	M3,5
6202.0000	AR	7	160	753	M5
6203.0000	AR	7	160	965	M5
6204.0000	AR	7	160	980	M5
6205.0000	AR	10	160	712	M6
6206.0000	BR	10	220	948	M6
6207.0000	BR	12	220	980	M8
6208.0000	AR	12	160	712	M8
6209.0000	BR	20	220	925	M16

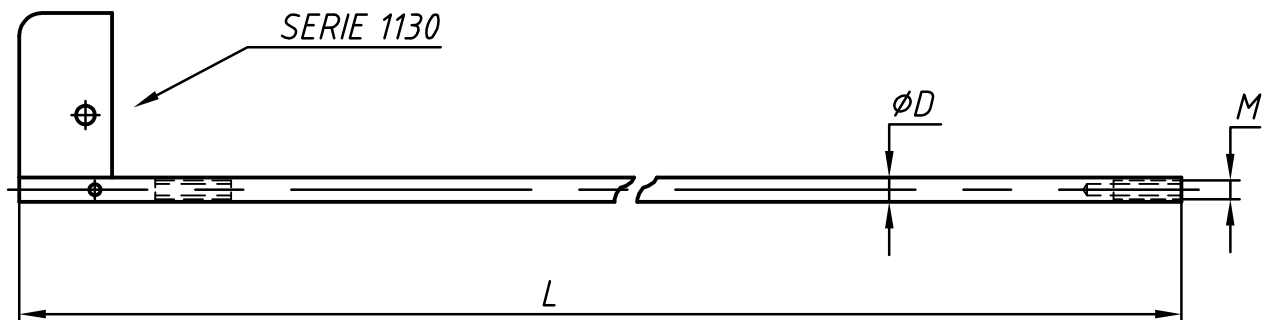


1 = Chaîne - Kette - Chain  
 2 = Raccord - Verbindung - Connector



No de cde Bestell Nr Order Nr	Type	Chaîne Kette Chain	p mm	
6210.0000	Multibar 65		6	1
6211.0000	Multibar 73 / 3000 H		8	1
6212.0000	Multibar 65		6	2
6213.0000	Multibar 73 / 3000 H		8	2

POUSSETTES SIMPLES POUR TOURS AUTOMATIQUES BECHLER  
 EINFACHE STOSS-STANGEN FUER LANGDREHAUTOMATEN BECHLER  
 SIMPLE PUSHRODS FOR AUTOMATICS BECHLER

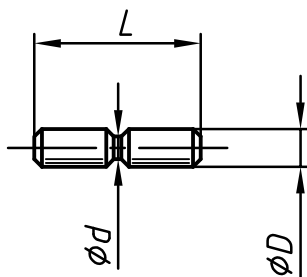


No de cde Bestell Nr Order Nr	Machines TORNOS TORNOS maschinen TORNOS machines	Ø D mm	L mm	M mm
6215.0000	AS-4	4,50	800	M3,5
6216.0000	AS-7	6,50	800	M5
6217.0000	AR-10	10	800	M6
6218.0000	BE-12	12	1060	M6



GOUPILLES DE SECURITE BECHLER  
SICHERUNGSSTIFTE BECHLER  
LOCKING PINS BECHLER

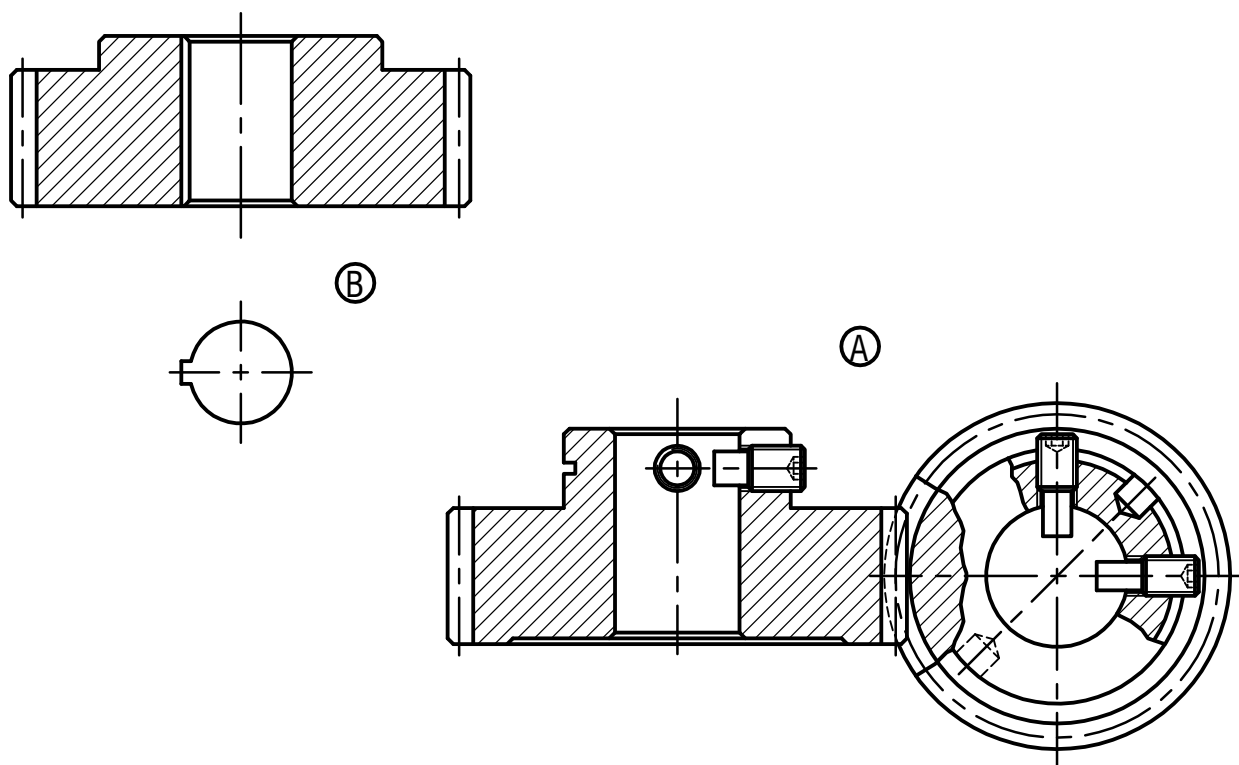
SERIE 6220



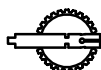
No de cde Bestell Nr Order Nr	Machines Maschinen Machines	Ø D mm	L mm	Ø d mm
6220.0000	AS / AR	4	19	2,10
6220.0001	AS / AR	4	19	2,40
6221.0000	B / BR	5	23	3,50

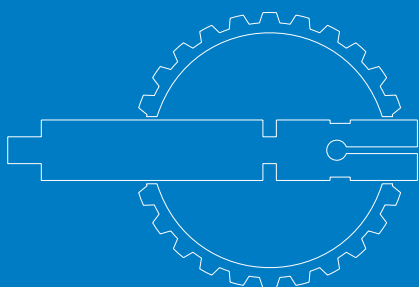
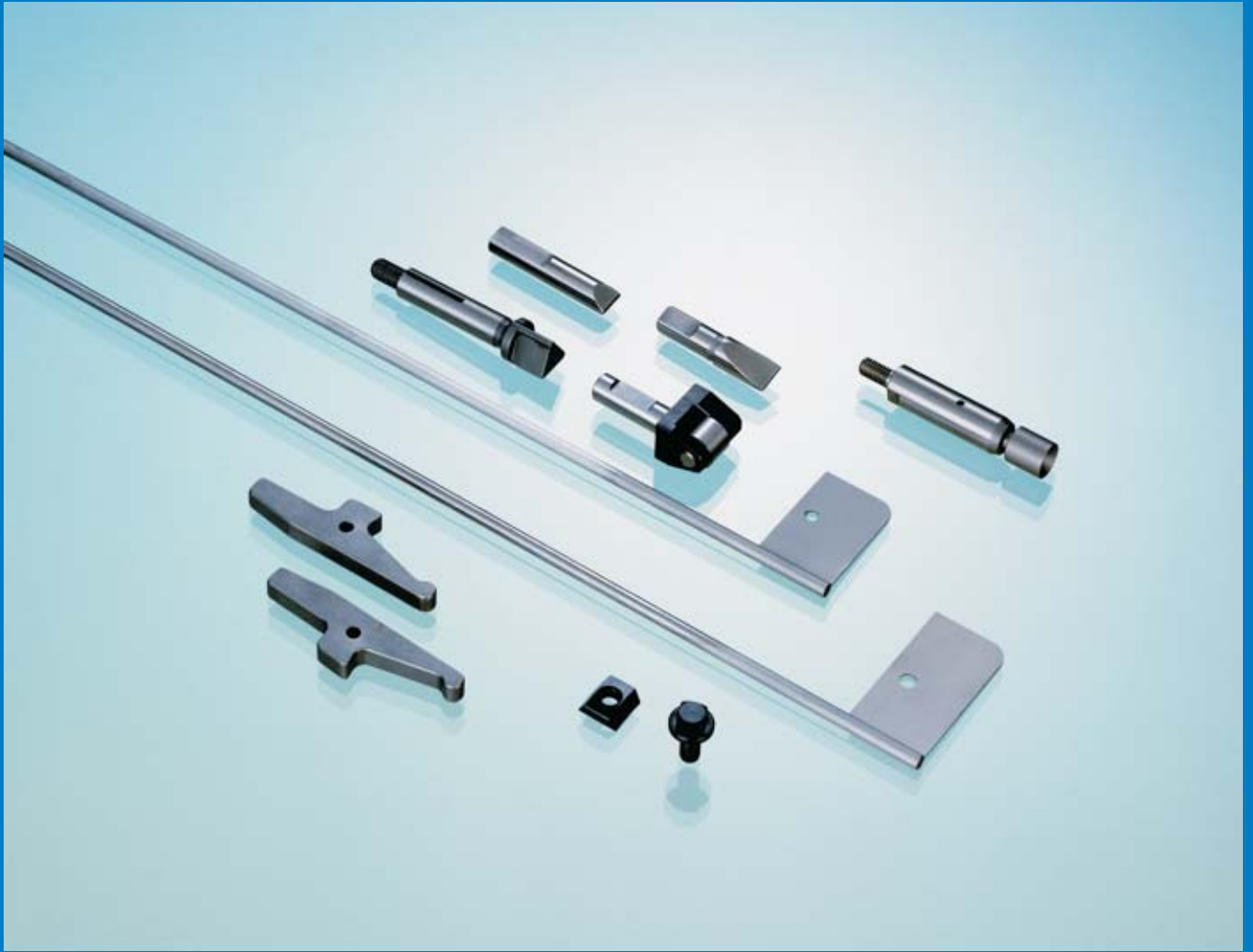
ENGRENAGES DE BOITES A VITESSES BECHLER AS/AR  
ZAHNRAEDER FUER GESCHWINDIGKEITSWECHSELKASTEN BECHLER AS/AR  
GEARS FOR SPEED BOXES BECHLER AS/AR

SERIE 6240

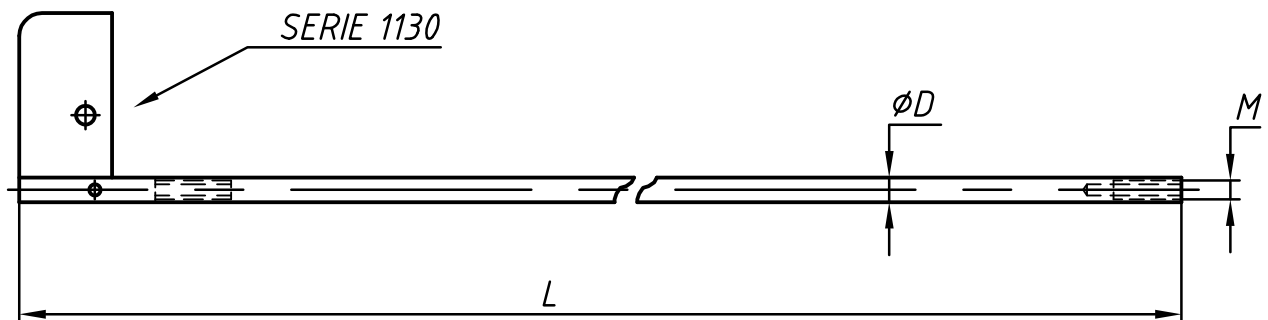


No de cde Bestell Nr Order Nr	Machines BECHLER BECHLER maschinen AS / AR BECHLER machines	(A)	(B)
6241.0000	Z = 17 / 27	X	
6242.0000	Z = 27		X



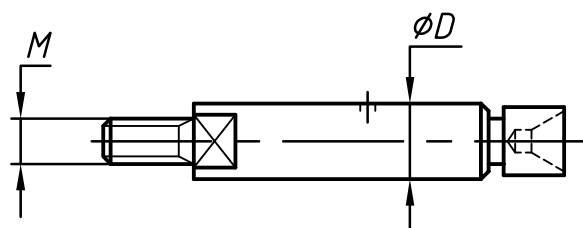


ANDRÉ FREI & FILS SA



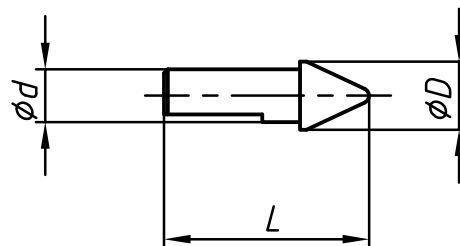
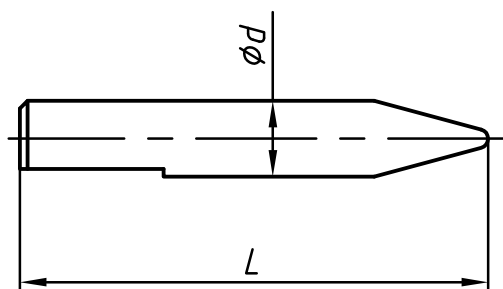
No de cde Bestell Nr Order Nr	Machines Petermann Petermann maschinen Petermann machines	Ø D mm	L mm	M mm
7100.0000	P-4	4,50	620	M3,5
7101.0000	P-7	6,50	800	M5
7102.0000	P-7R	10	800	M6
7103.0000	P-7R Arrêtage/Stop	10	950	M6
7104.0000	10-HS	14	790	M8
7105.0000	P-16	16	890	M10
7106.0000	P-25	25	900	M12

EMBOUITS TOURNANTS SIMPLES POUR POUSSE-BARRES  
 EINFACHE DREHENDE ENDSTUECKE FUER STOSS-STANGEN  
 SIMPLE REVOLVING END-PIECES FOR PUSHRODS



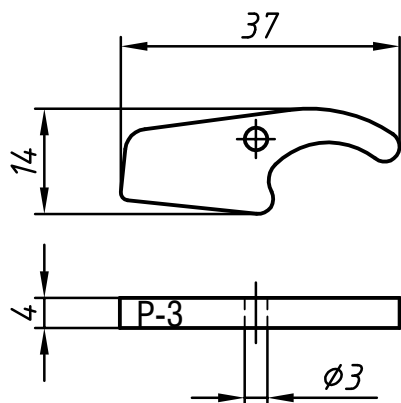
No de cde Bestell Nr Order Nr	Ø D mm	M mm
1150.0000	4,50	M 3,5
1151.0000	7	M 5
1152.0000	10	M 6
1153.0000	12	M 6
1154.0000	14	M 8
1155.0000	16	M 10
1156.0000	20	M 10
1157.0000	25	M 12

Autres dimensions sur demande  
 Weitere Masse auf verlangen  
 Other sizes on request

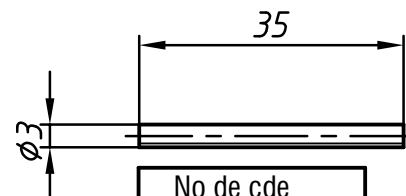


No de cde Bestell Nr Order Nr	Machines Petermann Petermann maschinen Petermann machines	Type Typ Type	$\varnothing d$ mm	$\varnothing D$ mm	L mm
7120.0000	Verticaux Senkrechte Vertical	P-3	8		
7121.0000		P-7	9	10	32
7122.0000	Bascule Wippen Rocker	P-7	8	12	32
7123.0000	Poupée Spindelstock Headstock	P-7	10		45
7124.0000		P-7	11		52
7125.0000	Poupée à galet Spindelstock mit Rolle Headstock wiht roller	P-7			
7126.0000	Axe et galet pour dito Achse und Rolle für ditto Axis and roller for same	P-7			
7127.0000	Bec d'avance broche combiné 3 broches P-4 Spindelvorschub-Nocken für Komb.Apparat P-4 Spindle advance toe for combined attachment P-4				
7128.0000	Bec perceur 2 broches P-7 pour nombrage Nocken für 2-sp. Bohrrapparat P-7 zur Indexierung Drilling attachment toe to index the 2-sp. drilling att. P-7				
7129.0000	Bec de desserrage de pince P-7 Entspann-Nocken für Spannzange P-7 Releasing toe for P-7 headstock collet				
7130.0000	Bec à galet pour dispositif came cloche P-7 Rollen-Nocken für Glockenkurven-Vorschub P-7 Roller toe for bell cam device P-7				

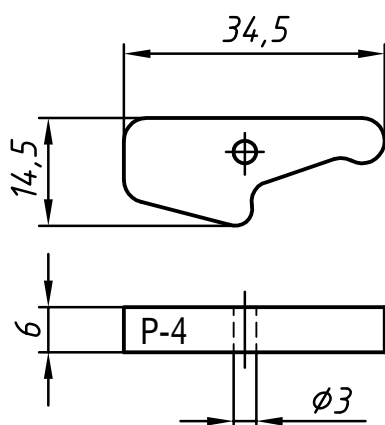
Autres becs sur demande  
 Weitere Nocken auf Verlangen  
 Other toes on request



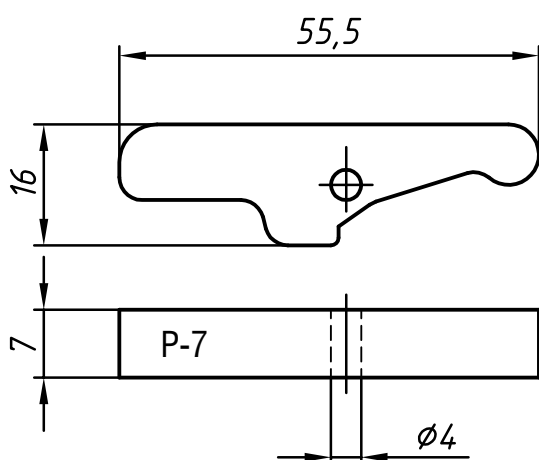
P-3	
No de cde	
Bestell Nr	
Order Nr	
7140.0000	



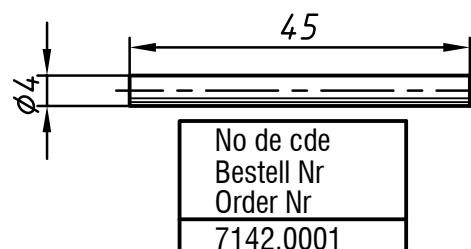
P-3	
No de cde	
Bestell Nr	
Order Nr	
7140.0001	



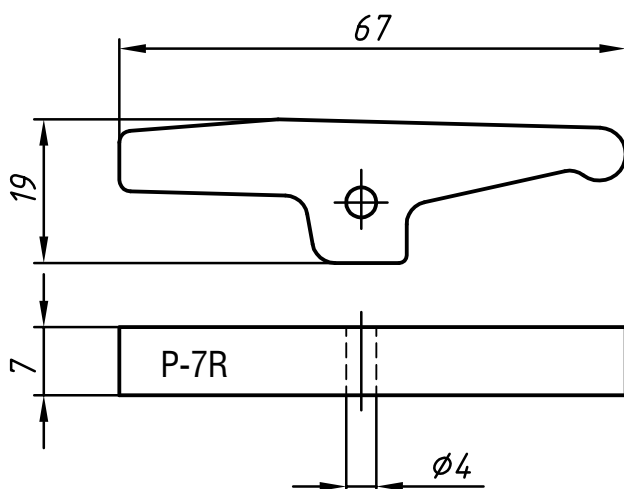
P-4	
No de cde	
Bestell Nr	
Order Nr	
7141.0000	



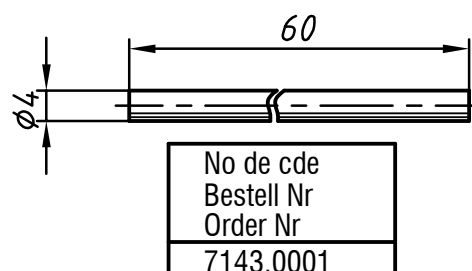
P-7	
No de cde	
Bestell Nr	
Order Nr	
7142.0000	



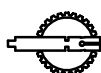
P-7	
No de cde	
Bestell Nr	
Order Nr	
7142.0001	

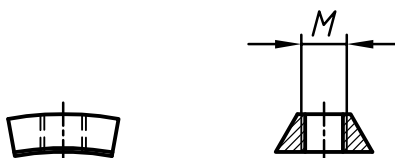


P-7R	
No de cde	
Bestell Nr	
Order Nr	
7143.0000	



P-7R	
No de cde	
Bestell Nr	
Order Nr	
7143.0001	

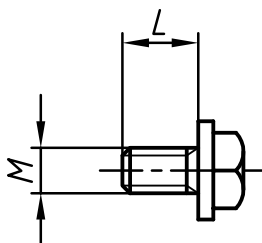




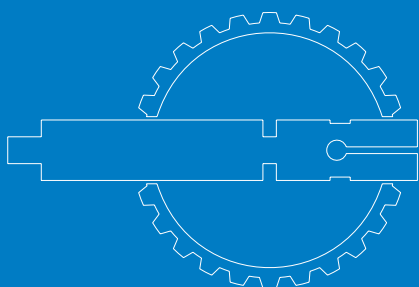
Taquets de perçage P-7 / P-16  
 Bohr-Nocken P-7 / P-16  
 Drilling toe P-7 / P-16

No de cde Bestell Nr Order Nr	Machines PETERMANN PETERMANN maschinen PETERMANN machines	M mm
7150.0000	P-7 / P-16	M6

Vis pour taquets de perçage  
 Schraube für Bohr-Nocken  
 Screw for drilling toe



No de cde Bestell Nr Order Nr	Machines PETERMANN PETERMANN maschinen PETERMANN machines	M mm	L mm
2405.0000 (7151.0000)	P-7 / P-16	M6	13

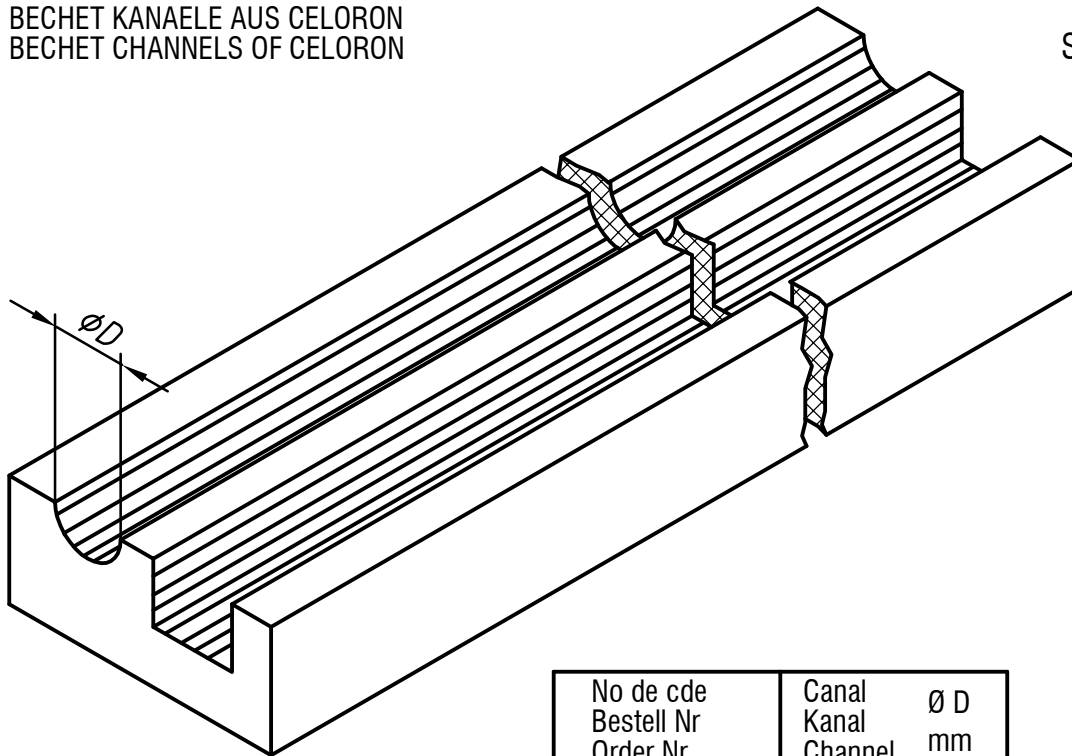


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CANAUX BECHET EN CELORON  
 BECHET KANAELÉ AUS CELORON  
 BECHET CHANNELS OF CELORON

12.12

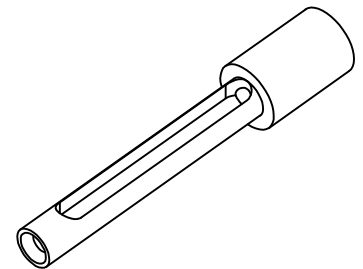
SERIE 8100  
 8110



No de cde Bestell Nr Order Nr	Canal Kanal Channel	Ø D mm
8100.0000	5	
8101.0000	7	
8102.0000	10	
8103.0000	12	

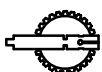
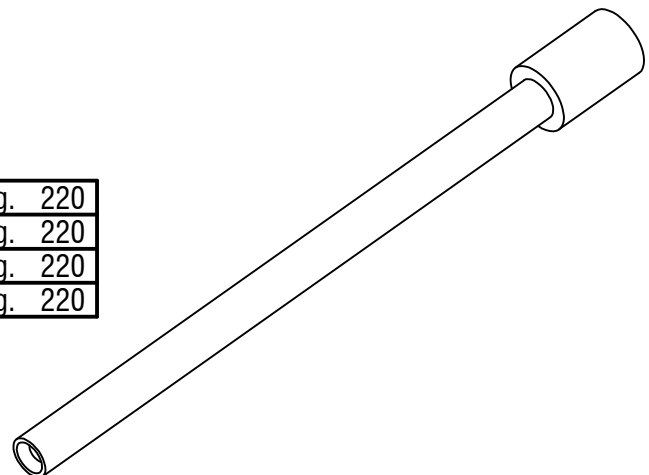
TUBES COURTS EN ACIER  
 STAHL KUERZE ROEHRE  
 STEEL SHORT TUBES

No de cde Bestell Nr Order Nr	Ø	Tubes Röhren Tubes	mm
8107.0000	5 x	lg.	110
8108.0000	7 x	lg.	110
8109.0000	10 x	lg.	110
8110.0000	12 x	lg.	110

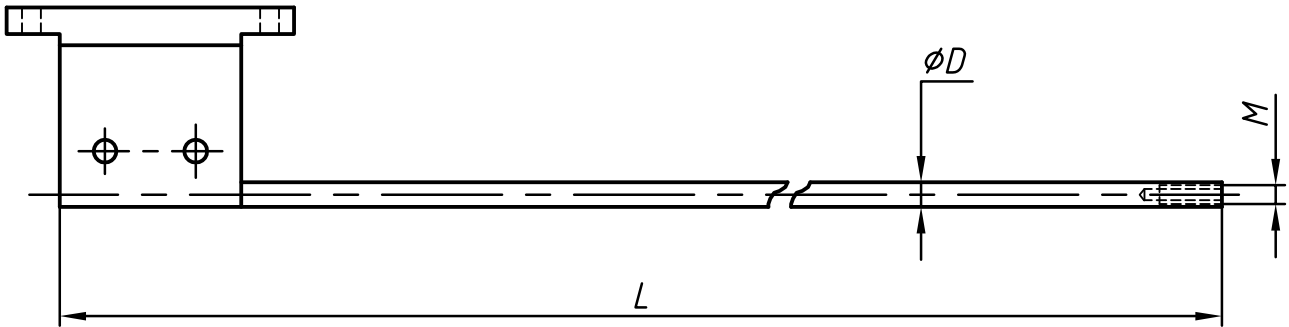


TUBES LONGS EN ACIER  
 STAHL LANGE ROEHRE  
 STEEL LONG TUBES

8112.0000	5 x	lg.	220
8113.0000	7 x	lg.	220
8114.0000	10 x	lg.	220
8115.0000	12 x	lg.	220

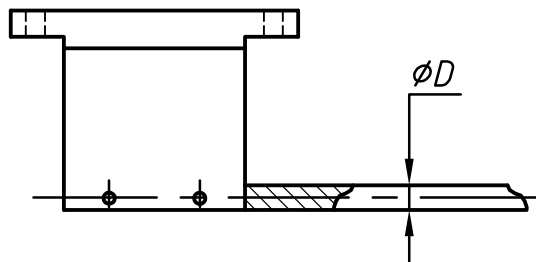




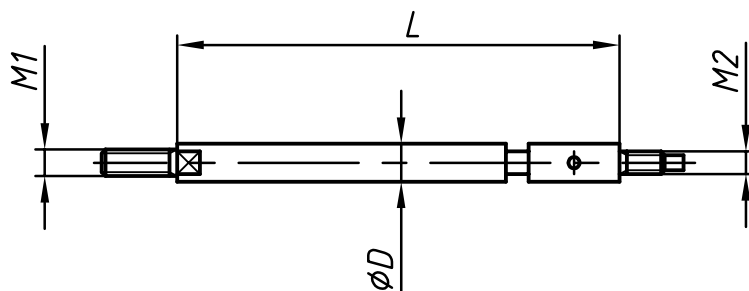


No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	M mm	Embout Endstück End-piece
8120.0000	5	923	M3,5	Bechler 3000-H
8122.0000	7	881	M5	Béchet ou FMB 7
8123.0000	7	916	M5	Bechler 7 long
8124.0000	10	838,5	M7	Béchet ou FMB 10
8125.0000	10	892,5	M6	Bechler 10 long
8126.0000	12	838	M8	Béchet ou FMB 12
8127.0000	12	910	M8	Bechler 12

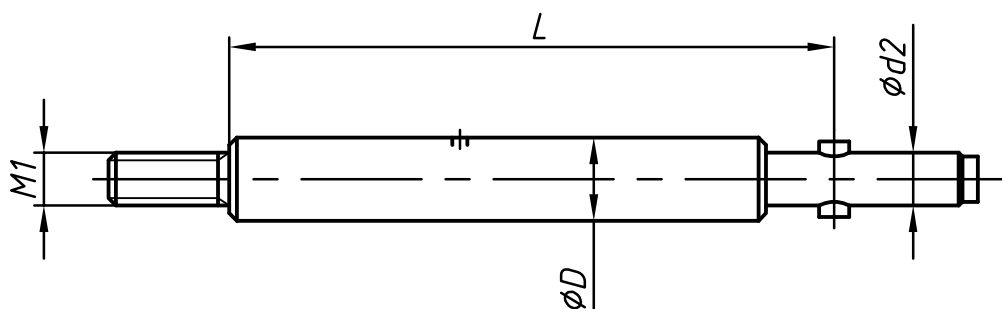
DRAPEAUX POUR POUSSETTES BECHET  
 FAHNEN FUER BECHET STOSS-STANGE  
 FLAGS FOR BECHET PUSHROD



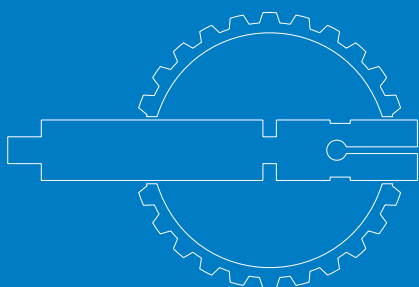
No de cde Bestell Nr Order Nr	$\phi D$ mm
8132.0000	7
8133.0000	10
8134.0000	12



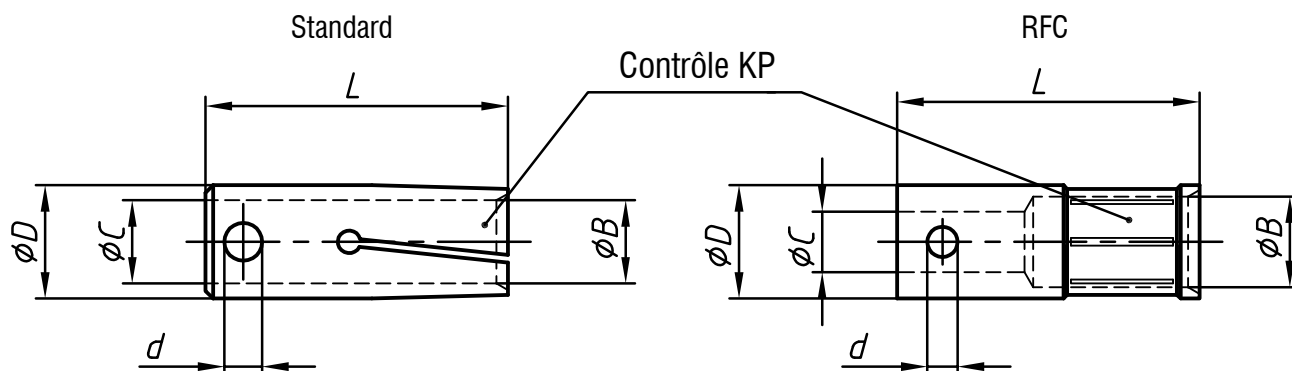
No de cde Bestell Nr Order Nr	Type de chargeur Typ von Stangenlager Type for barloader	$\phi D$ mm	L mm	M1 mm	M2 mm
8140.0000 (6141.0000)	Canal $\phi 5$	5	58,5	M3,5	M3
8141.0000 (9221.0000)	Canal $\phi 7$	7	78,5	M5	M5



No de cde Bestell Nr Order Nr	Type de chargeur Typ von Stangenlager Type for barloader	$\phi D$ mm	L mm	M1 mm	M2 mm
8142.0000	Canal $\phi 10$	10	122	M7	7
8143.0000	Canal $\phi 12$	12	122	M8	8
8144.0000	Canal $\phi 15$	15	122	M10	11

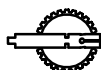


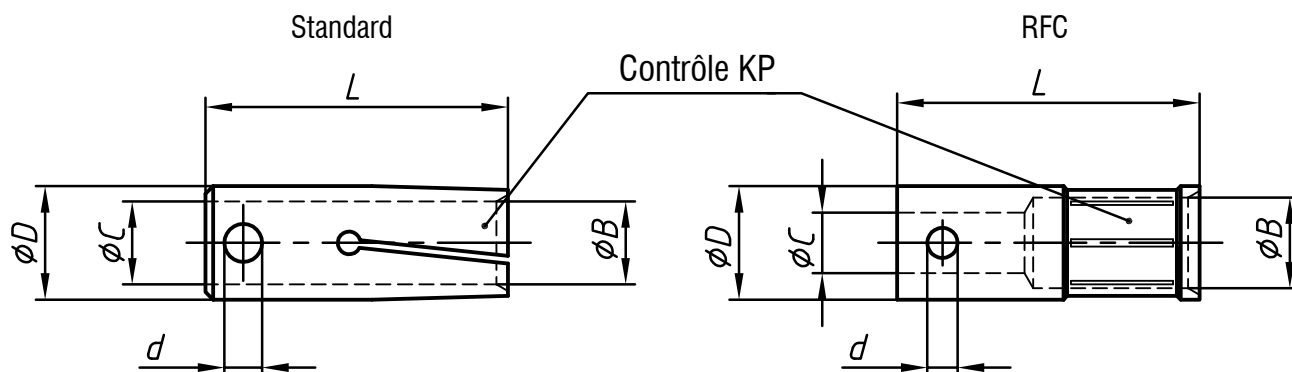
ANDRÉ FREI & FILS SA



FMB - TRAUB - HAGENUK - IEMCA - ROBOBAR - LNS - SAMECA  
MINISPRINT - MINITURBO

No de cde Bestell Nr Order Nr	Ø D mm	Standard		RFC		Ecart Abstand Distance mm	Ø C mm	L mm	d
		Alésage Bohrung Bore mm	Ø B mm	Alésage Bohrung Bore mm	Ø B mm				
9100.0000	7	2 - 5,5	—	—	—	0,10 - 0,10	M5	37	-
9100.0001	7	—	—	5,6 - 6	—	0,10 - 0,10	M5	37	-
9101.0000	10	3 - 8	—	—	—	0,10 - 0,10	7	40	2 x Ø 4
9101.0001	10	—	—	8,1 - 8,5	—	0,10 - 0,10	7	40	2 x Ø 4
9102.0000	12	4 - 10	—	—	—	0,10 - 0,10	8	40	2 x Ø 4
9102.0001	12	—	—	10,1 - 10,5	—	0,10 - 0,10	8	40	2 x Ø 4
9103.0000	15	7 - 13	—	—	—	0,10 - 0,10	11	40	2 x Ø 6
9103.0001	15	—	—	13,1 - 13,5	—	0,10 - 0,10	11	40	2 x Ø 6
9104.0000	16	8 - 14	—	—	—	0,10 - 0,10	11	40	2 x Ø 6
9104.0001	16	—	—	14,1 - 14,5	—	0,10 - 0,10	11	40	2 x Ø 6
9105.0000	18	8 - 15,5	—	—	—	0,10 - 0,10	11	40	2 x Ø 6
9105.0001	18	—	—	15,6 - 16	—	0,10 - 0,10	11	40	2 x Ø 6
9106.0000	20	10 - 17,5	—	—	—	0,10 - 0,10	14	65	2 x Ø 8
9106.0001	20	—	—	17,6 - 18	—	0,10 - 0,10	14	65	2 x Ø 8
9107.0000	25	15 - 22,5	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9107.0001	25	—	—	22,6 - 23	—	0,50 - 0,50	20	65	2 x Ø 8
9108.0000	30	20 - 27,5	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9108.0001	30	—	—	27,6 - 28	—	0,50 - 0,50	20	65	2 x Ø 8
9109.0000	32	20 - 29	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9109.0001	32	—	—	29,1 - 30	—	0,50 - 0,50	20	65	2 x Ø 8
9110.0000	34	20 - 31	—	—	—	0,50 - 0,50	20	90	2 x M6
9110.0001	34	—	—	31,1 - 32	—	0,50 - 0,50	20	90	2 x M6
9111.0000	36	20 - 33	—	—	—	0,50 - 0,50	20	90	2 x M8
9111.0001	36	—	—	33,1 - 34	—	0,50 - 0,50	20	90	2 x M8
9112.0000	38	20 - 35	—	—	—	0,50 - 0,50	20	90	2 x M8
9112.0001	38	—	—	35,1 - 36	—	0,50 - 0,50	20	90	2 x M8
9113.0000	40	20 - 37	—	—	—	0,50 - 0,50	20	90	2 x M8
9113.0001	40	—	—	37,1 - 38	—	0,50 - 0,50	20	90	2 x M8
9114.0000	42	20 - 39	—	—	—	0,50 - 0,50	20	90	2 x M8
9114.0001	42	—	—	39,1 - 40	—	0,50 - 0,50	20	90	2 x M8

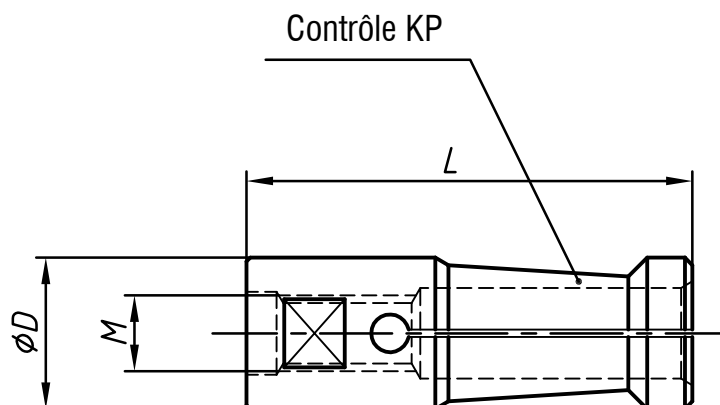




FMB - TRAUB - HAGENUK - IEMCA - ROBOBAR - LNS - SAMECA  
MINISPRINT - MINITURBO

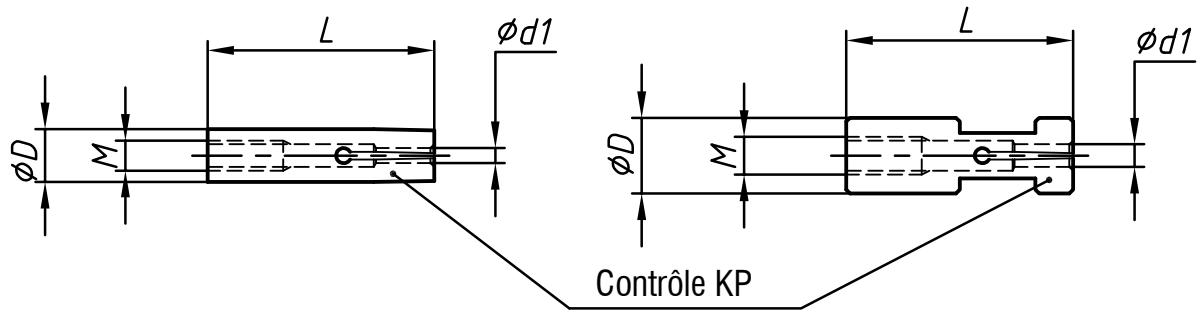
Dimensions spéciales  
Spezial Ausmass  
Special sizes

No de cde Bestell Nr Order Nr	Ø D mm	Standard		RFC		Ecart Abstand Distance mm	Ø C mm	L mm	d
		Alésage Bohrung Bore mm	Ø B mm	Alésage Bohrung Bore mm	Ø B mm				
9115.0000	5	1,5 - 4	—	—	—	0,10 - 0,10	M4	37	-
9117.0000	13	4 - 11	—	—	—	0,50 - 0,50	8	40	2 x Ø 4
9117.0001	13	—	—	11,1 - 11,5	—	0,50 - 0,50	8	40	2 x Ø 4
9118.0000	14	5 - 12	—	—	—	0,50 - 0,50	8	40	2 x Ø 4
9118.0001	14	—	—	12,1 - 12,5	—	0,50 - 0,50	8	40	2 x Ø 4
9119.0000	17	8 - 15	—	—	—	0,50 - 0,50	11	40	2 x Ø 6
9119.0001	17	—	—	15,1 - 15,5	—	0,50 - 0,50	11	40	2 x Ø 6
9120.0000	19	8 - 16,5	—	—	—	0,50 - 0,50	11	40	2 x Ø 6
9120.0001	19	—	—	16,6 - 17	—	0,50 - 0,50	11	40	2 x Ø 6
9121.0000	21	12 - 18,5	—	—	—	0,50 - 0,50	14	65	2 x Ø 8
9121.0001	21	—	—	18,6 - 19	—	0,50 - 0,50	14	65	2 x Ø 8
9122.0000	22	15 - 19,5	—	—	—	0,50 - 0,50	14	65	2 x Ø 8
9122.0001	22	—	—	19,6 - 20	—	0,50 - 0,50	14	65	2 x Ø 8
9123.0000	23	15 - 20,5	—	—	—	0,50 - 0,50	14	65	2 x Ø 8
9123.0001	23	—	—	20,6 - 21	—	0,50 - 0,50	14	65	2 x Ø 8
9124.0000	24	15 - 21,5	—	—	—	0,50 - 0,50	14	65	2 x Ø 8
9124.0001	24	—	—	21,6 - 22	—	0,50 - 0,50	14	65	2 x Ø 8
9125.0000	26	20 - 23,5	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9125.0001	26	—	—	23,6 - 24	—	0,50 - 0,50	20	65	2 x Ø 8
9126.0000	27	20 - 24,5	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9126.0001	27	—	—	24,6 - 25	—	0,50 - 0,50	20	65	2 x Ø 8
9127.0000	28	20 - 25,5	—	—	—	0,50 - 0,50	20	65	2 x Ø 8
9127.0001	28	—	—	25,6 - 26	—	0,50 - 0,50	20	65	2 x Ø 8



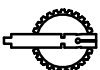
IEMCA AS / CS

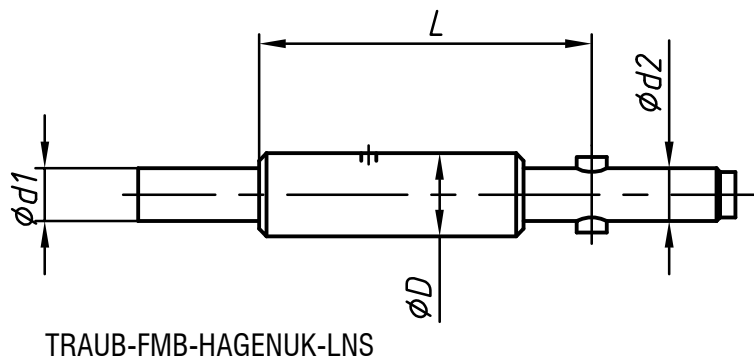
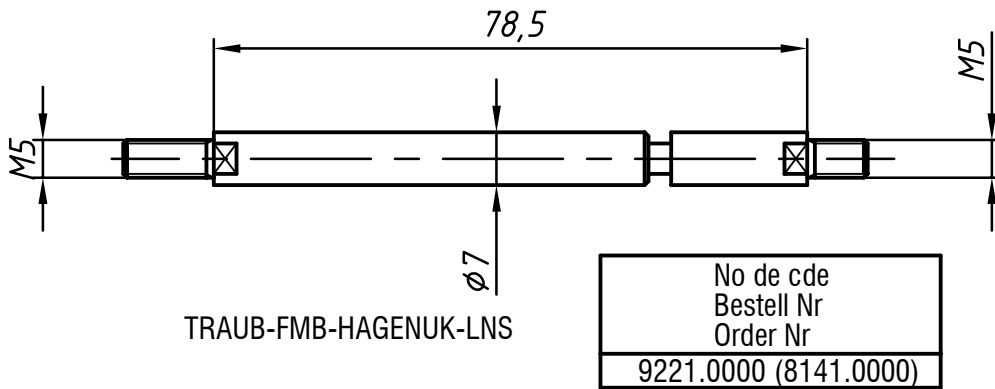
No de cde Bestell Nr Order Nr	Ø D mm	L mm	M mm
9151.0000	5,5	37	M4 x 0,5
9152.0000	7	40	M5 x 0,5
9153.0000	7,5	40	M5 x 0,5
9155.0000	10	40	M6 x 0,75
9156.0000	12	42	M7 x 0,75
9157.0000	15	42	M8 x 1
9158.0000	16	42	M8 x 1
9160.0000	20	59	M10 x 1
9163.0000	27	59	M10 x 1



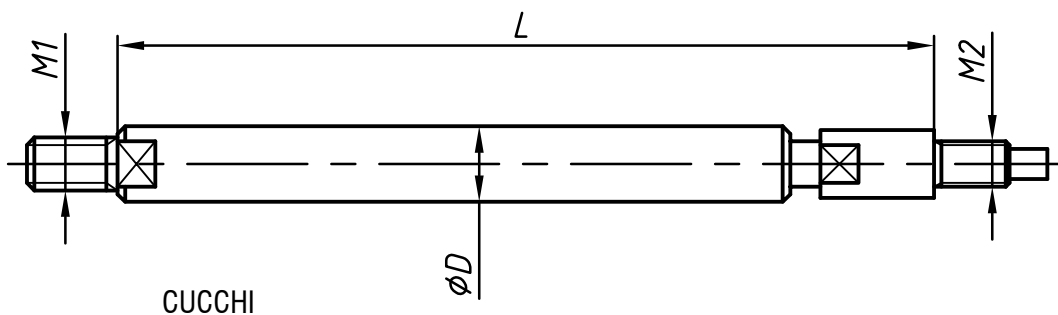
TRYTON LNS

No de cde Bestell Nr Order Nr	Ø D mm	Alésage Bohrung Bore	Ø d1 mm	Ecart Abstand Distance	L mm	M mm
9190.0000	6	1 - 5		0,10 - 0,10	30	M4
9191.0000	7	2 - 5,5		0,10 - 0,10	30	M4
9192.0000	10	3 - 8		0,10 - 0,10	30	M5
9193.0000	12	4 - 10		0,50 - 0,50	30	M6



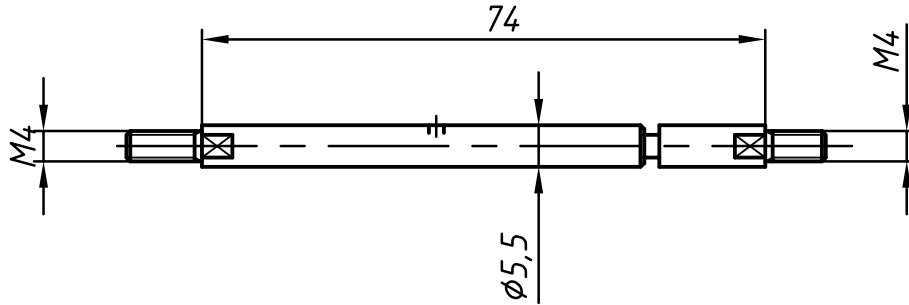


No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	$\phi d1$ mm	$\phi d2$ mm
9222.0000	10	51	8	7
9223.0000	12	51	8	8
9224.0000	15	51	12	11
9225.0000	18	51	12	11
9226.0000	20	56	17	14
9227.0000	25	58,5	20	20



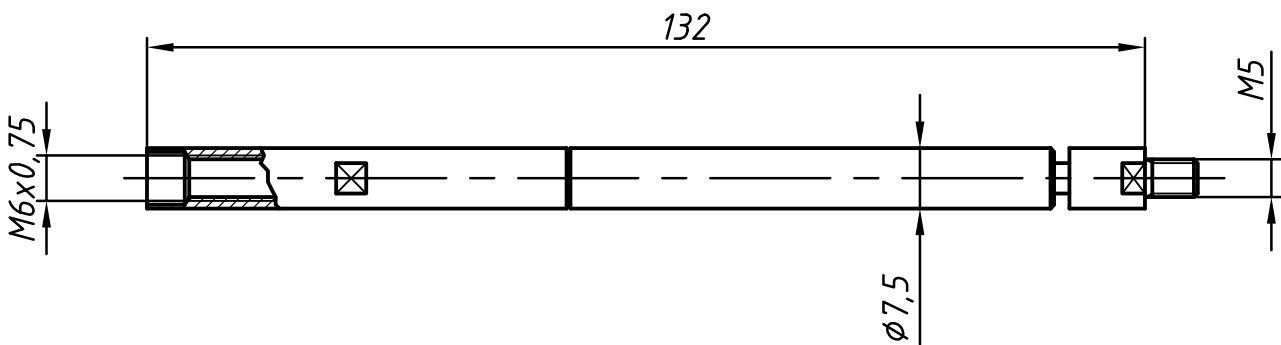
No de cde Bestell Nr Order Nr	$\phi D$ mm	L mm	M1 mm	M2 mm
9250.0000	10	108	M7	M6 x 0,75
9251.0000	12	108	M8	M7 x 0,75
9252.0000	14	103	M10	M8 x 1





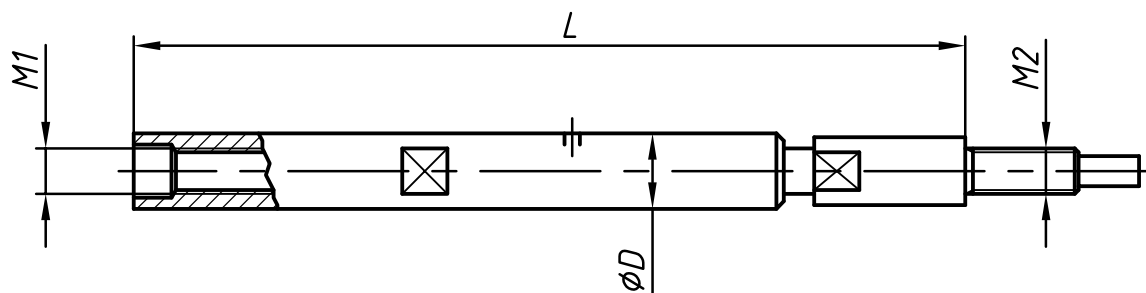
IEMCA pour pince FMB  
IEMCA für Zange FMB  
IEMCA for collet FMB

No de cde Bestell Nr Order Nr	Canal Kanal Canal
9260.0000	5-D



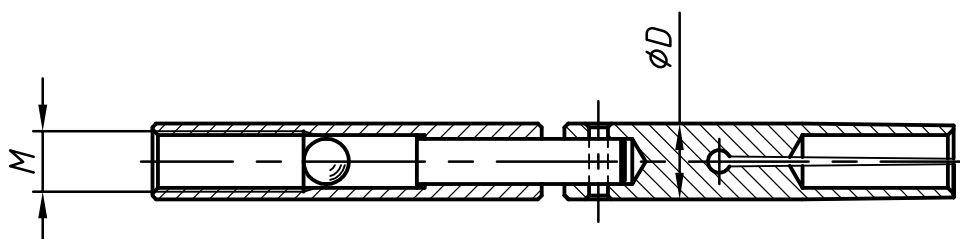
IEMCA pour pince FMB  
IEMCA für Zange FMB  
IEMCA for collet FMB

No de cde Bestell Nr Order Nr	Canal Kanal Canal
9261.0000	7-D



IEMCA pour pinces IEMCA AS/CS  
IEMCA für Zange IEMCA AS/CS  
IEMCA for collet IEMCA AS/CS

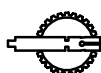
No de cde Bestell Nr Order Nr	Ø D mm	L mm	M1 mm	M2 mm
9263.0000	7,5	122	M6 x 0,75	M5 x 0,5
9264.0000	10	110	M8 x 0,75	M6 x 0,75
9265.0000	12	113	M8 x 0,75	M7 x 0,75
9266.0000	15	113	M8 x 0,75	M8 x 1

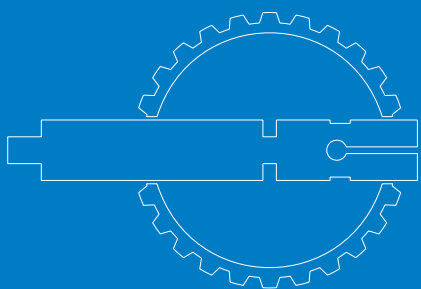


SERIE 9280

AZUMA

No de cde Bestell Nr Order Nr	Ø D mm	M1 mm
9280.0000	5,5	M4,5 x 0,5
9281.0000	8	M6 x 0,75
9282.0000	10	M8 x 0,75
9283.0000	12	M8 x 0,75
9284.0000	14	M8 x 0,75

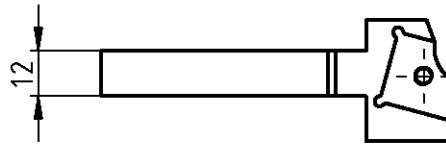
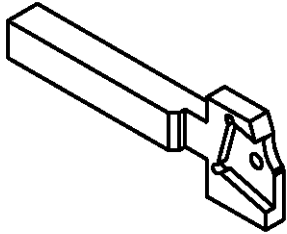




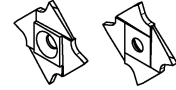
ANDRÉ FREI & FILS SA

OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

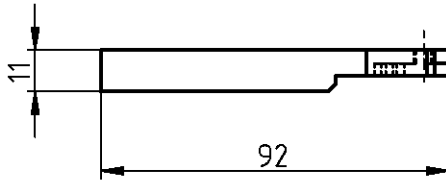
05.10



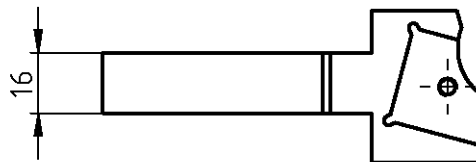
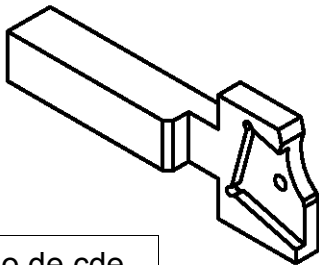
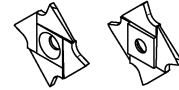
SLPR



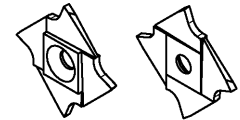
No de cde Bestell Nr Order Nr
9500.0510



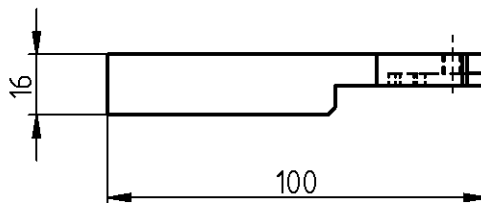
SLPL



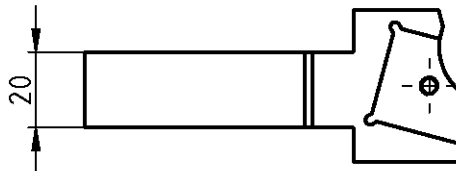
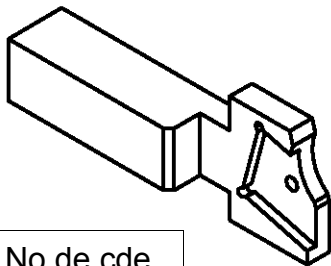
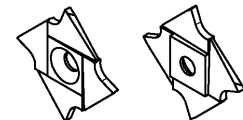
ELPR



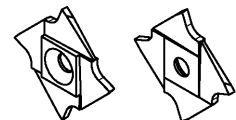
No de cde Bestell Nr Order Nr
9500.1651



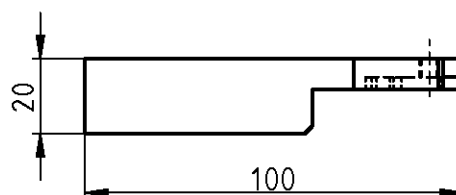
ELPL



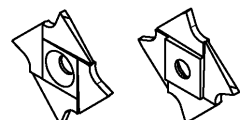
ELPR



No de cde Bestell Nr Order Nr
9500.1652

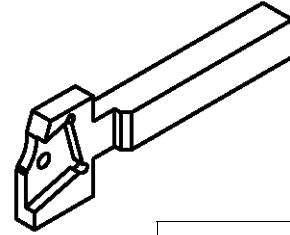
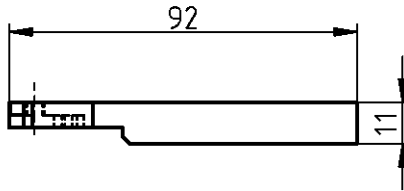
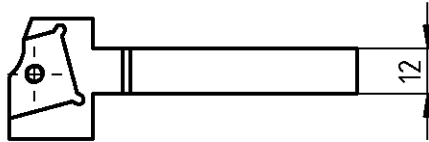
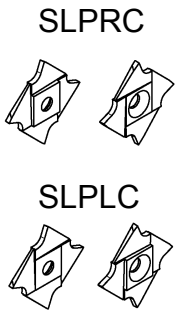


ELPL

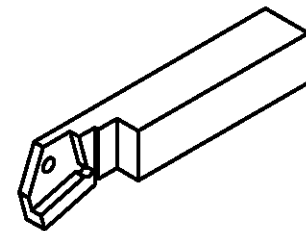
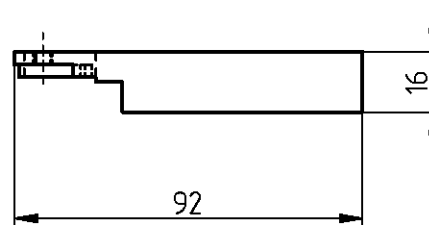
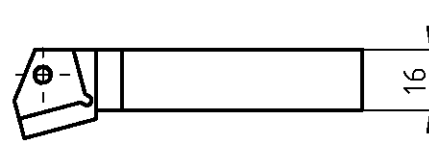
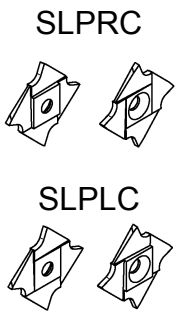


OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

05.10



No de cde Bestell Nr Order Nr
9500.1730



No de cde Bestell Nr Order Nr
9500.1830

Autres dimensions sur demande  
 Weitere Masse auf verlangen  
 Other sizes on request

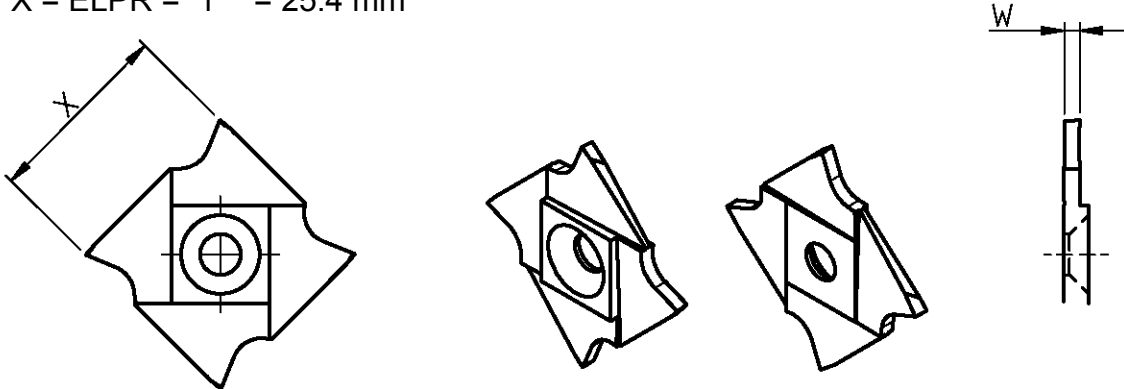


OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

05.10

X = SLPR = 3/4" = 19.05 mm

X = ELPR = 1" = 25.4 mm



Plaquettes à 4 tailles en métal dur, non revêtues Plättchen zu 4 Schnitten aus Hartmetall, ohne Ausführung Cutting inserts with 4 cuts of tungsten carbide, uncoated	A
Plaquettes à 4 tailles en métal dur, revêtues TIN Plättchen zu 4 Schnitten aus Hartmetall, TIN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TIN coated	B
Plaquettes à 4 tailles en métal dur, revêtues FUTURA Plättchen zu 4 Schnitten aus Hartmetall, FUTURA ausgeführt Cutting inserts with 4 cuts of tungsten carbide, FUTURA coated	C
Plaquettes à 4 tailles en métal dur, revêtues TICN Plättchen zu 4 Schnitten aus Hartmetall, TICN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TICN coated	D

No de cde Bestell Nr Order Nr	X	Type Typ Type	W mm
9501.1116.R	SLPR	A	1.60
9501.1120.R	SLPR	A	2.00
9501.1124.R	SLPR	A	2.40
9501.2116.R	SLPR	B	1.60
9501.2120.R	SLPR	B	2.00
9501.2124.R	SLPR	B	2.40
9501.3116.R	SLPR	C	1.60
9501.3120.R	SLPR	C	2.00
9501.3124.R	SLPR	C	2.40
9501.4116.R	SLPR	D	1.60
9501.4120.R	SLPR	D	2.00
9501.4124.R	SLPR	D	2.40

No de cde Bestell Nr Order Nr	X	Type Typ Type	W mm
9501.1216.R	ELPR	A	1.60
9501.1220.R	ELPR	A	2.00
9501.1224.R	ELPR	A	2.40
9501.2216.R	ELPR	B	1.60
9501.2220.R	ELPR	B	2.00
9501.2224.R	ELPR	B	2.40
9501.3216.R	ELPR	C	1.60
9501.3220.R	ELPR	C	2.00
9501.3224.R	ELPR	C	2.40
9501.4216.R	ELPR	D	1.60
9501.4220.R	ELPR	D	2.00
9501.4224.R	ELPR	D	2.40

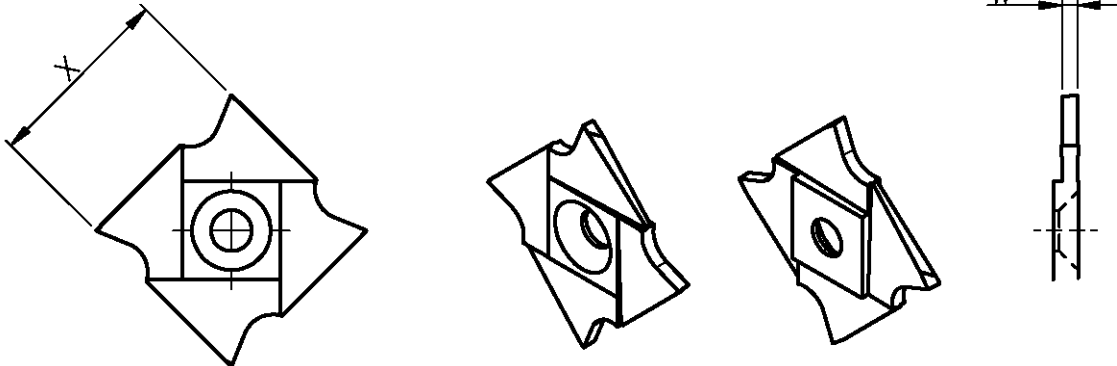


OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

05.10

X = SLPL = 3/4" = 19.05 mm

X = ELPL = 1" = 25.4 mm



Plaquettes à 4 tailles en métal dur, non revêtues Plättchen zu 4 Schnitten aus Hartmetall, ohne Ausführung Cutting inserts with 4 cuts of tungsten carbide, uncoated	A
Plaquettes à 4 tailles en métal dur, revêtues TIN Plättchen zu 4 Schnitten aus Hartmetall, TIN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TIN coated	B
Plaquettes à 4 tailles en métal dur, revêtues FUTURA Plättchen zu 4 Schnitten aus Hartmetall, FUTURA ausgeführt Cutting inserts with 4 cuts of tungsten carbide, FUTURA coated	C
Plaquettes à 4 tailles en métal dur, revêtues TICN Plättchen zu 4 Schnitten aus Hartmetall, TICN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TICN coated	D

No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1116.L	SLPL	A	1.60
9501.1120.L	SLPL	A	2.00
9501.1124.L	SLPL	A	2.40
9501.2116.L	SLPL	B	1.60
9501.2120.L	SLPL	B	2.00
9501.2124.L	SLPL	B	2.40
9501.3116.L	SLPL	C	1.60
9501.3120.L	SLPL	C	2.00
9501.3124.L	SLPL	C	2.40
9501.4116.L	SLPL	D	1.60
9501.4120.L	SLPL	D	2.00
9501.4124.L	SLPL	D	2.40

No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1216.L	ELPL	A	1.60
9501.1220.L	ELPL	A	2.00
9501.1224.L	ELPL	A	2.40
9501.2216.L	ELPL	B	1.60
9501.2220.L	ELPL	B	2.00
9501.2224.L	ELPL	B	2.40
9501.3216.L	ELPL	C	1.60
9501.3220.L	ELPL	C	2.00
9501.3224.L	ELPL	C	2.40
9501.4216.L	ELPL	D	1.60
9501.4220.L	ELPL	D	2.00
9501.4224.L	ELPL	D	2.40

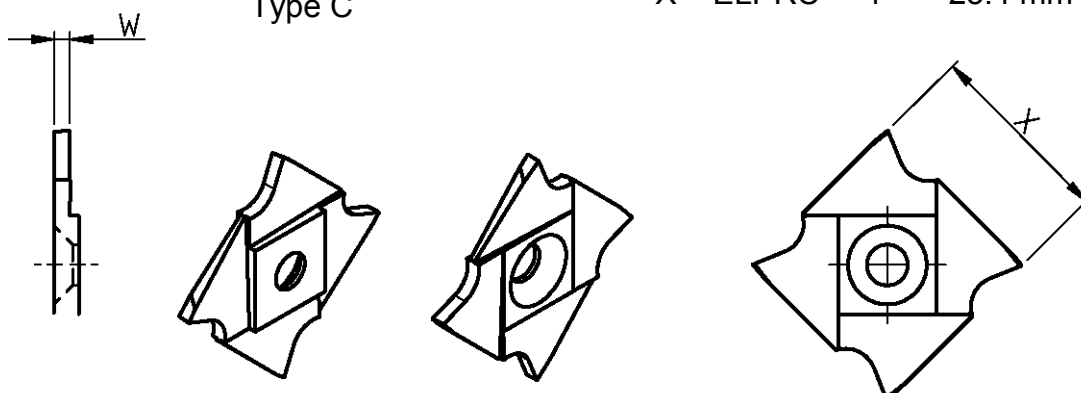


OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

05.10

Type C  
 Typ C  
 Type C

X = SLPRC = 3/4" = 19.05 mm  
 X = ELPRC = 1" = 25.4 mm



Plaquettes à 4 tailles en métal dur, non revêtues Plättchen zu 4 Schnitten aus Hartmetall, ohne Ausführung Cutting inserts with 4 cuts of tungsten carbide, uncoated	A
Plaquettes à 4 tailles en métal dur, revêtues TIN Plättchen zu 4 Schnitten aus Hartmetall, TIN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TIN coated	B
Plaquettes à 4 tailles en métal dur, revêtues FUTURA Plättchen zu 4 Schnitten aus Hartmetall, FUTURA ausgeführt Cutting inserts with 4 cuts of tungsten carbide, FUTURA coated	C
Plaquettes à 4 tailles en métal dur, revêtues TICN Plättchen zu 4 Schnitten aus Hartmetall, TICN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TICN coated	D

No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1116.RC	SLPRC	A	1.60
9501.1120.RC	SLPRC	A	2.00
9501.1124.RC	SLPRC	A	2.40
9501.2116.RC	SLPRC	B	1.60
9501.2120.RC	SLPRC	B	2.00
9501.2124.RC	SLPRC	B	2.40
9501.3116.RC	SLPRC	C	1.60
9501.3120.RC	SLPRC	C	2.00
9501.3124.RC	SLPRC	C	2.40
9501.4116.RC	SLPRC	D	1.60
9501.4120.RC	SLPRC	D	2.00
9501.4124.RC	SLPRC	D	2.40

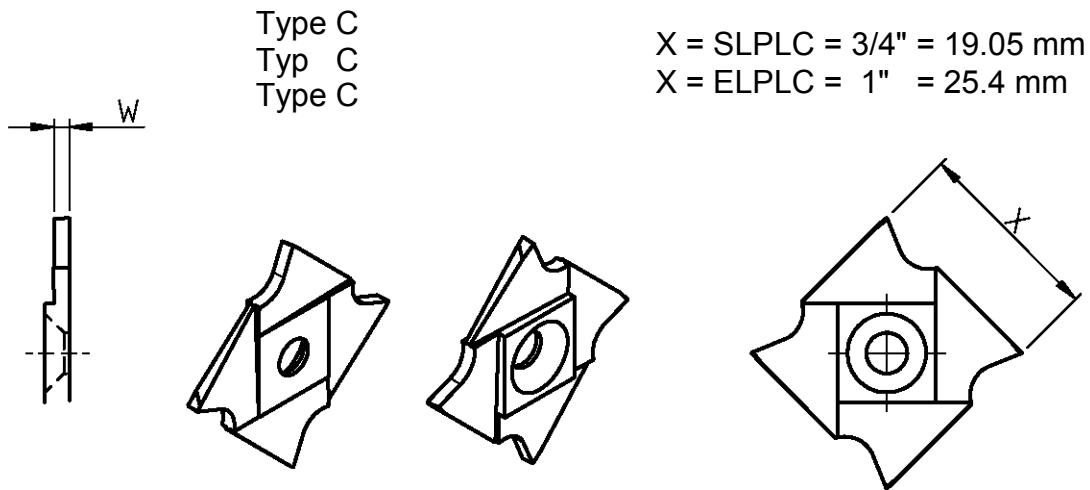
No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1216.RC	ELPRC	A	1.60
9501.1220.RC	ELPRC	A	2.00
9501.1224.RC	ELPRC	A	2.40
9501.2216.RC	ELPRC	B	1.60
9501.2220.RC	ELPRC	B	2.00
9501.2224.RC	ELPRC	B	2.40
9501.3216.RC	ELPRC	C	1.60
9501.3220.RC	ELPRC	C	2.00
9501.3224.RC	ELPRC	C	2.40
9501.4216.RC	ELPRC	D	1.60
9501.4220.RC	ELPRC	D	2.00
9501.4224.RC	ELPRC	D	2.40





OUTILS DE FONCAGE A 4 TAILLES  
 EINSTECH-WERKZEUGE ZU 4 SCHNITTEN  
 CUTTING-IN TOOLS WITH 4 CUTS

05.10

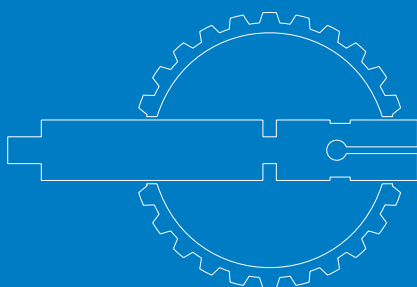


Plaquettes à 4 tailles en métal dur, non revêtues Plättchen zu 4 Schnitten aus Hartmetall, ohne Ausführung Cutting inserts with 4 cuts of tungsten carbide, uncoated	A
Plaquettes à 4 tailles en métal dur, revêtues TIN Plättchen zu 4 Schnitten aus Hartmetall, TIN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TIN coated	B
Plaquettes à 4 tailles en métal dur, revêtues FUTURA Plättchen zu 4 Schnitten aus Hartmetall, FUTURA ausgeführt Cutting inserts with 4 cuts of tungsten carbide, FUTURA coated	C
Plaquettes à 4 tailles en métal dur, revêtues TICN Plättchen zu 4 Schnitten aus Hartmetall, TICN ausgeführt Cutting inserts with 4 cuts of tungsten carbide, TICN coated	D

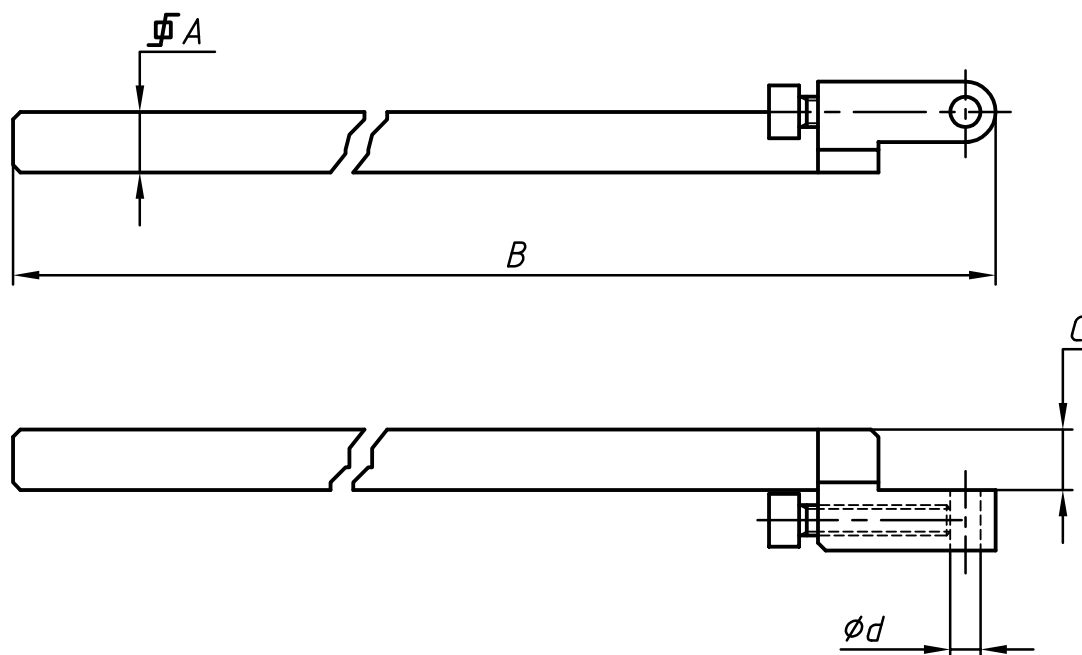
No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1116.LC	SLPLC	A	1.60
9501.1120.LC	SLPLC	A	2.00
9501.1124.LC	SLPLC	A	2.40
9501.2116.LC	SLPLC	B	1.60
9501.2120.LC	SLPLC	B	2.00
9501.2124.LC	SLPLC	B	2.40
9501.3116.LC	SLPLC	C	1.60
9501.3120.LC	SLPLC	C	2.00
9501.3124.LC	SLPLC	C	2.40
9501.4116.LC	SLPLC	D	1.60
9501.4120.LC	SLPLC	D	2.00
9501.4124.LC	SLPLC	D	2.40

No de cde Bestell Nr Order Nr	X	Tipe Typ Type	W mm
9501.1216.LC	ELPLC	A	1.60
9501.1220.LC	ELPLC	A	2.00
9501.1224.LC	ELPLC	A	2.40
9501.2216.LC	ELPLC	B	1.60
9501.2220.LC	ELPLC	B	2.00
9501.2224.LC	ELPLC	B	2.40
9501.3216.LC	ELPLC	C	1.60
9501.3220.LC	ELPLC	C	2.00
9501.3224.LC	ELPLC	C	2.40
9501.4216.LC	ELPLC	D	1.60
9501.4220.LC	ELPLC	D	2.00
9501.4224.LC	ELPLC	D	2.40



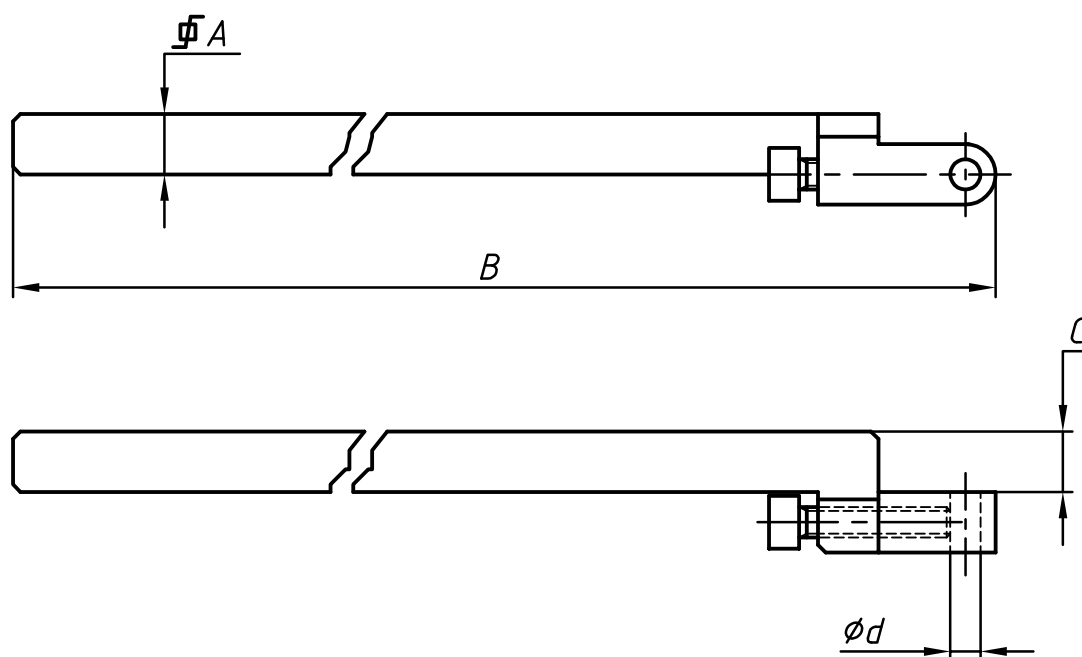


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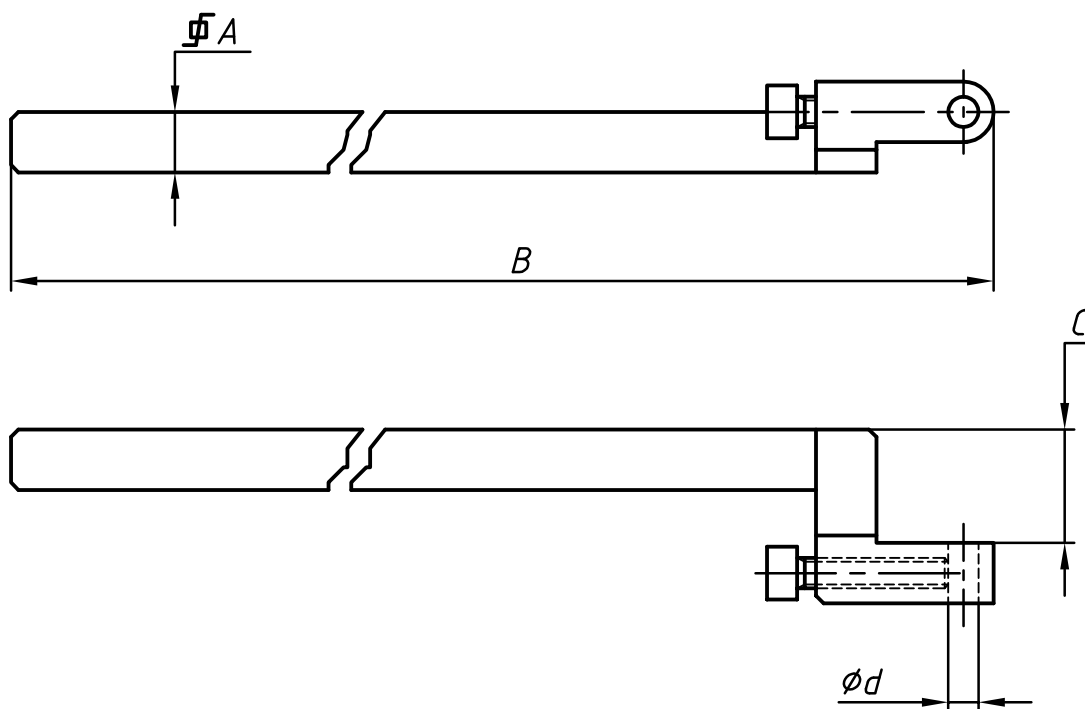
Droite Rechts Right

No de cde Bestell Nr Order Nr	ø A mm	B mm	C mm	ø d mm
10100.0000	7 x 7	146	7	3
10101.0000	7 x 7	146	7	4
10102.0000	8 x 8	146	8	3
10103.0000	8 x 8	146	8	4
10104.0000	8 x 8	146	8	5
10105.0000	10 x 10	176	10	4
10106.0000	10 x 10	176	10	5
10107.0000	10 x 10	176	10	6
10108.0000	10 x 10	176	10	7
10109.0000	12 x 12	190	12	4
10110.0000	12 x 12	190	12	6
10111.0000	12 x 12	190	12	8
10112.0000	14 x 14	190	14	4
10113.0000	14 x 14	190	14	6
10114.0000	14 x 14	190	14	8
10115.0000	14 x 14	190	14	10



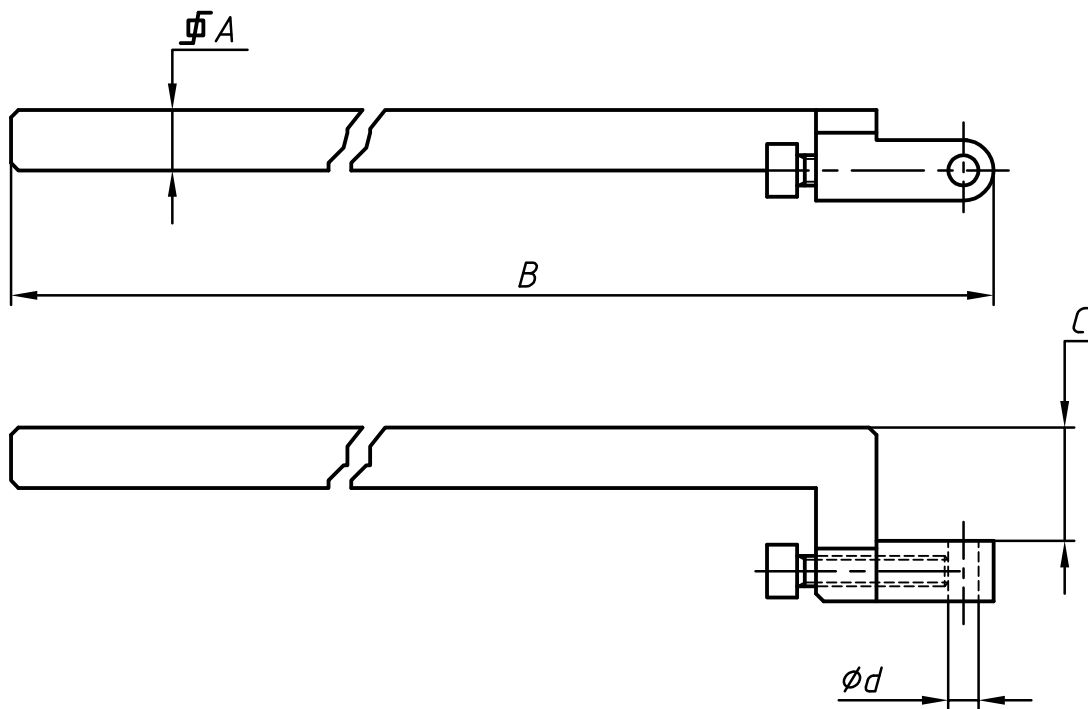
Gauche Links Left

No de cde Bestell Nr Order Nr	$\varnothing A$ mm	B mm	C mm	$\varnothing d$ mm
10120.0000	7 x 7	146	7	3
10121.0000	7 x 7	146	7	4
10122.0000	8 x 8	146	8	3
10123.0000	8 x 8	146	8	4
10124.0000	8 x 8	146	8	5
10125.0000	10 x 10	176	10	4
10126.0000	10 x 10	176	10	5
10127.0000	10 x 10	176	10	6
10128.0000	10 x 10	176	10	7
10129.0000	12 x 12	190	12	4
10130.0000	12 x 12	190	12	6
10131.0000	12 x 12	190	12	8
10132.0000	14 x 14	190	14	4
10133.0000	14 x 14	190	14	6
10134.0000	14 x 14	190	14	8
10135.0000	14 x 14	190	14	10



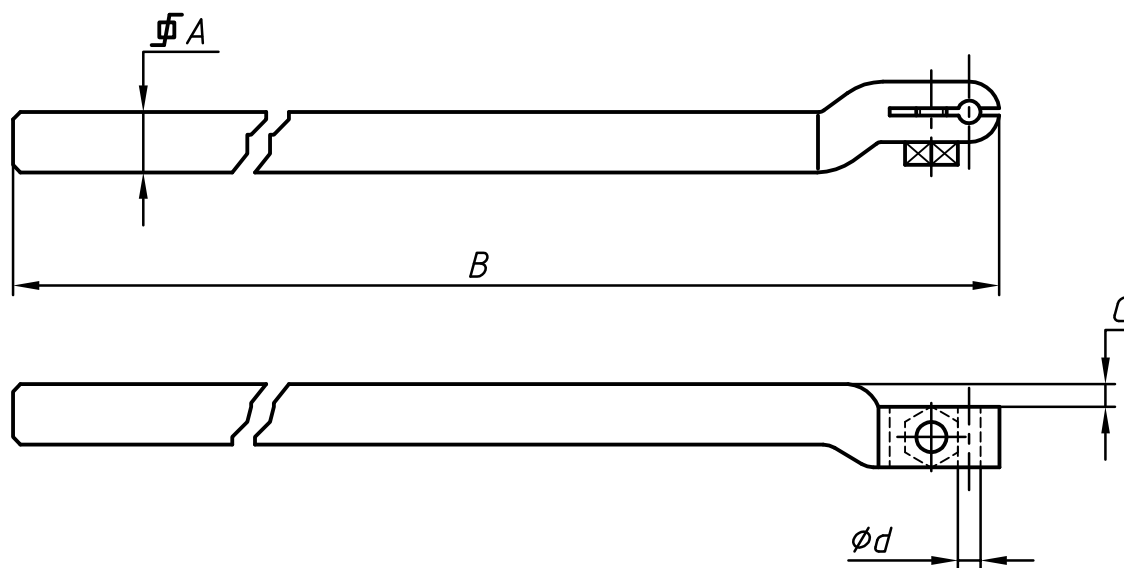
Droite Rechts Right

No de cde Bestell Nr Order Nr	$\phi A$ mm	B mm	C mm	$\phi d$ mm
10140.0000	7 x 7	146	12	4
10141.0000	8 x 8	146	12	4
10142.0000	8 x 8	146	15	5
10143.0000	8 x 8	146	20	5
10144.0000	10 x 10	176	20	6
10145.0000	12 x 12	190	18	6
10146.0000	12 x 12	190	24	8
10147.0000	14 x 14	190	20	8
10148.0000	14 x 14	190	24	8



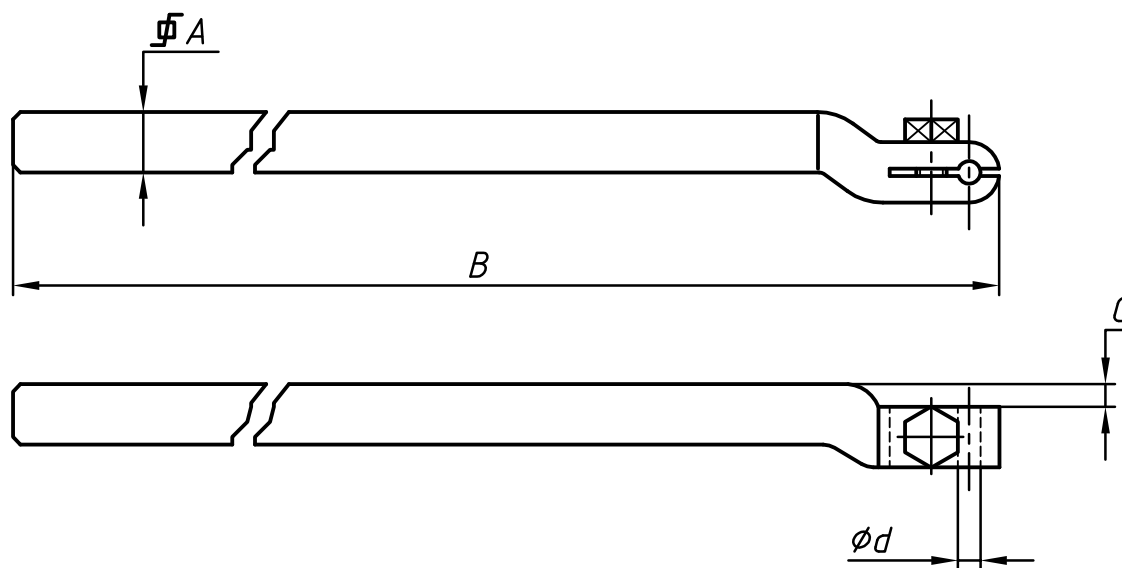
Gauche Links Left

No de cde Bestell Nr Order Nr	$\phi A$ mm	B mm	C mm	$\phi d$ mm
10150.0000	7 x 7	146	12	4
10151.0000	8 x 8	146	12	4
10152.0000	8 x 8	146	15	5
10153.0000	8 x 8	146	20	5
10154.0000	10 x 10	176	20	6
10155.0000	12 x 12	190	18	6
10156.0000	12 x 12	190	24	8
10157.0000	14 x 14	190	20	8
10158.0000	14 x 14	190	24	8



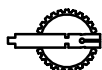
Droite Rechts Right

No de cde Bestell Nr Order Nr	$\phi A$ mm	B mm	C mm	$\phi d$ mm
10160.0000	6 x 6	132	3	1,50
10161.0000	6 x 6	132	3	2
10162.0000	6 x 6	132	3	3
10163.0000	7 x 7	140	3	1,50
10164.0000	7 x 7	140	3	2
10165.0000	7 x 7	140	3	3
10166.0000	8 x 8	140	4	1,50
10167.0000	8 x 8	140	4	2
10168.0000	8 x 8	140	4	3

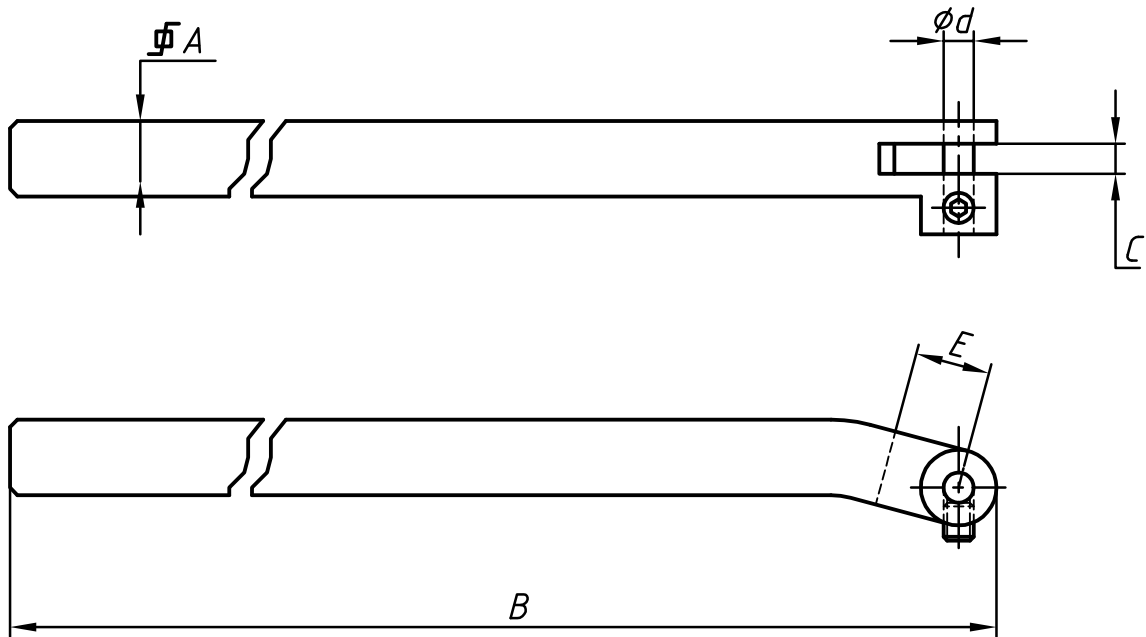


Gauche Links Left

No de cde Bestell Nr Order Nr	$\phi A$ mm	B mm	C mm	$\phi d$ mm
10170.0000	6 x 6	132	3	1,50
10171.0000	6 x 6	132	3	2
10172.0000	6 x 6	132	3	3
10173.0000	7 x 7	140	3	1,50
10174.0000	7 x 7	140	3	2
10175.0000	7 x 7	140	3	3
10176.0000	8 x 8	140	4	1,50
10177.0000	8 x 8	140	4	2
10178.0000	8 x 8	140	4	3

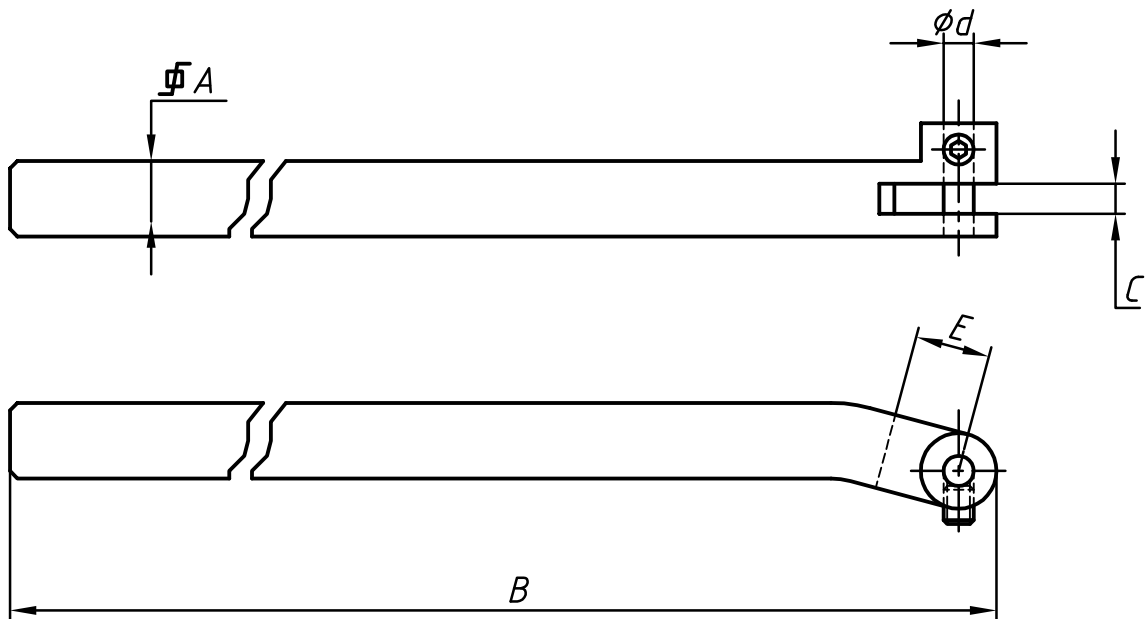






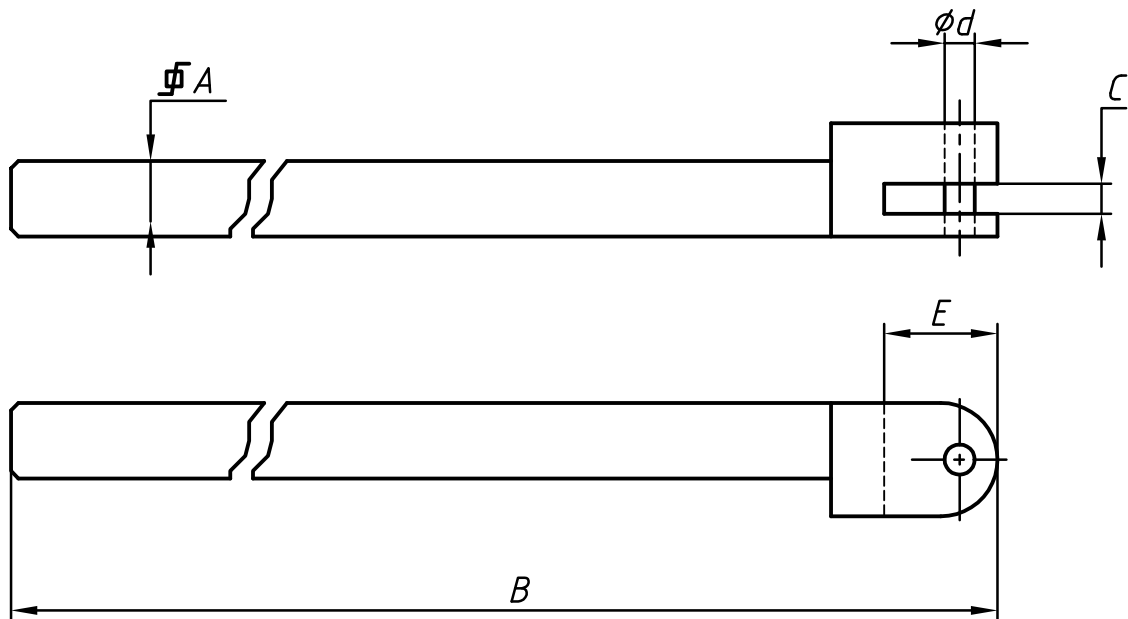
Droite Rechts Right

No de cde Bestell Nr Order Nr	$\varnothing A$ mm	B mm	C mm	$\varnothing d$ mm	E mm
10180.0000	6 x 6	132	2	3	10
10181.0000	6 x 6	132	3	3	10
10182.0000	7 x 7	140	2	3	10
10183.0000	7 x 7	140	3	3	10
10184.0000	7 x 7	140	4	3	10
10185.0000	7 x 7	140	2	4	10
10186.0000	7 x 7	140	3	4	10
10187.0000	7 x 7	140	4	4	10
10188.0000	8 x 8	140	2	3	10
10189.0000	8 x 8	140	3	3	10
10190.0000	8 x 8	140	4	3	10
10191.0000	8 x 8	140	2	4	10
10192.0000	8 x 8	140	3	4	10
10193.0000	8 x 8	140	4	4	10
10194.0000	10 x 10	150	3	3	10
10195.0000	10 x 10	150	4	3	10
10196.0000	10 x 10	150	3	4	10
10197.0000	10 x 10	150	4	4	10
10198.0000	12 x 12	150	4	4	15
10199.0000	12 x 12	150	5	4	15
10200.0000	12 x 12	150	4	5	15
10201.0000	12 x 12	150	5	5	15



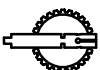
Gauche Links Left

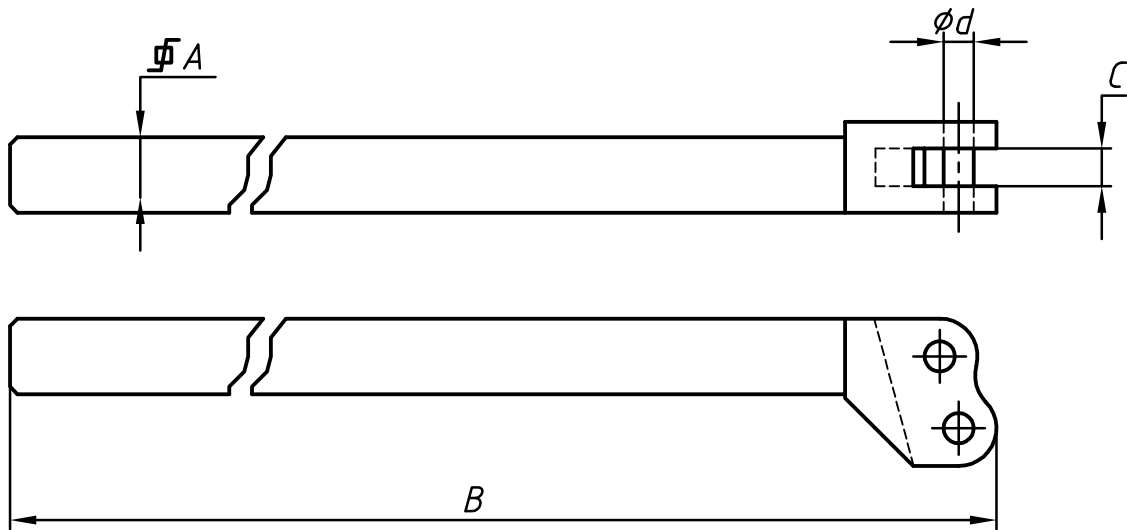
No de cde Bestell Nr Order Nr	$\varnothing A$ mm	B mm	C mm	$\varnothing d$ mm	E mm
10210.0000	6 x 6	132	2	3	10
10211.0000	6 x 6	132	3	3	10
10212.0000	7 x 7	140	2	3	10
10213.0000	7 x 7	140	3	3	10
10214.0000	7 x 7	140	4	3	10
10215.0000	7 x 7	140	2	4	10
10216.0000	7 x 7	140	3	4	10
10217.0000	7 x 7	140	4	4	10
10218.0000	8 x 8	140	2	3	10
10219.0000	8 x 8	140	3	3	10
10220.0000	8 x 8	140	4	3	10
10221.0000	8 x 8	140	2	4	10
10222.0000	8 x 8	140	3	4	10
10223.0000	8 x 8	140	4	4	10
10224.0000	10 x 10	150	3	3	10
10225.0000	10 x 10	150	4	3	10
10226.0000	10 x 10	150	3	4	10
10227.0000	10 x 10	150	4	4	10
10228.0000	12 x 12	150	4	4	15
10229.0000	12 x 12	150	5	4	15
10230.0000	12 x 12	150	4	5	15
10231.0000	12 x 12	150	5	5	15



Gauche Links Left

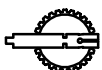
No de cde Bestell Nr Order Nr	$\varnothing A$ mm	B mm	C mm	$\varnothing d$ mm	E mm
10240.0000	7 x 7	140	2	3	10
10241.0000	7 x 7	140	3	3	10
10242.0000	7 x 7	140	4	3	10
10243.0000	7 x 7	140	2	4	10
10244.0000	7 x 7	140	3	4	10
10245.0000	7 x 7	140	4	4	10
10246.0000	8 x 8	140	2	3	10
10247.0000	8 x 8	140	3	3	10
10248.0000	8 x 8	140	4	3	10
10249.0000	8 x 8	140	2	4	10
10250.0000	8 x 8	140	3	4	10
10251.0000	8 x 8	140	4	4	10
10252.0000	10 x 10	150	3	3	10
10253.0000	10 x 10	150	4	3	10
10254.0000	10 x 10	150	3	4	10
10255.0000	10 x 10	150	4	4	10
10256.0000	12 x 12	150	4	4	15
10257.0000	12 x 12	150	5	4	15
10258.0000	12 x 12	150	4	5	15
10259.0000	12 x 12	150	5	5	15

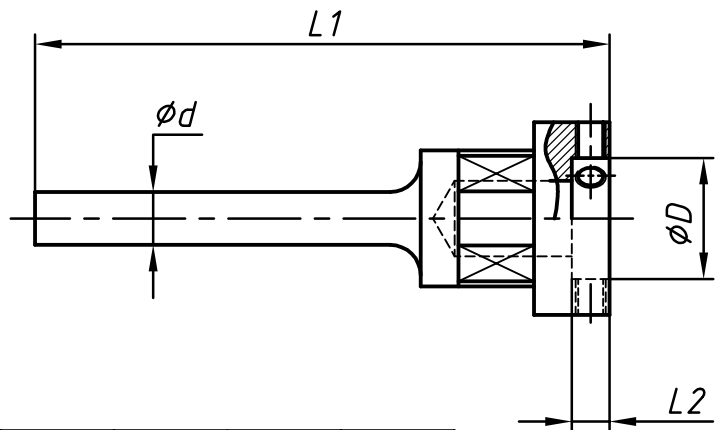
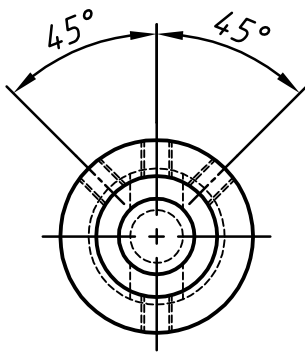




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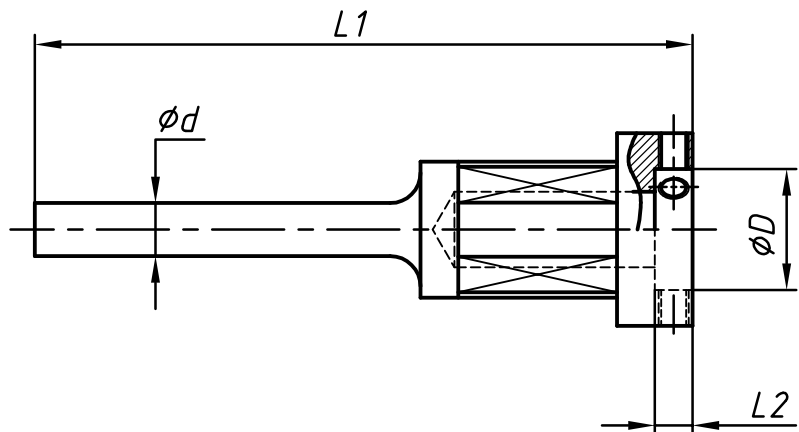
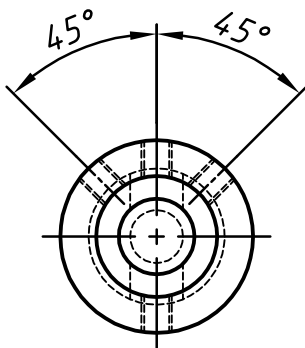
No de cde Bestell Nr Order Nr	$\varnothing A$ mm	B mm	C mm	$\varnothing d$ mm
10260.0000	6 x 6	132	1,50	2
10261.0000	6 x 6	132	2	2
10262.0000	6 x 6	132	3	2
10263.0000	6 x 6	132	1,50	3
10264.0000	6 x 6	132	2	3
10265.0000	6 x 6	132	3	3
10266.0000	7 x 7	140	2	3
10267.0000	7 x 7	140	3	3
10268.0000	7 x 7	140	4	3
10269.0000	7 x 7	140	2	4
10270.0000	7 x 7	140	3	4
10271.0000	7 x 7	140	4	4
10272.0000	8 x 8	140	2	3
10273.0000	8 x 8	140	3	3
10274.0000	8 x 8	140	4	3
10275.0000	8 x 8	140	2	4
10276.0000	8 x 8	140	3	4
10277.0000	8 x 8	140	4	4
10278.0000	10 x 10	150	3	3
10279.0000	10 x 10	150	4	3
10280.0000	10 x 10	150	3	4
10281.0000	10 x 10	150	4	4
10282.0000	12 x 12	150	4	4
10283.0000	12 x 12	150	5	4
10284.0000	12 x 12	150	4	5
10285.0000	12 x 12	150	5	5
10286.0000	14 x 14	180	4	4
10287.0000	14 x 14	180	5	4
10288.0000	14 x 14	180	4	5
10289.0000	14 x 14	180	5	5





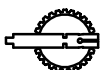
COURT  
 KURZE  
 SHORT

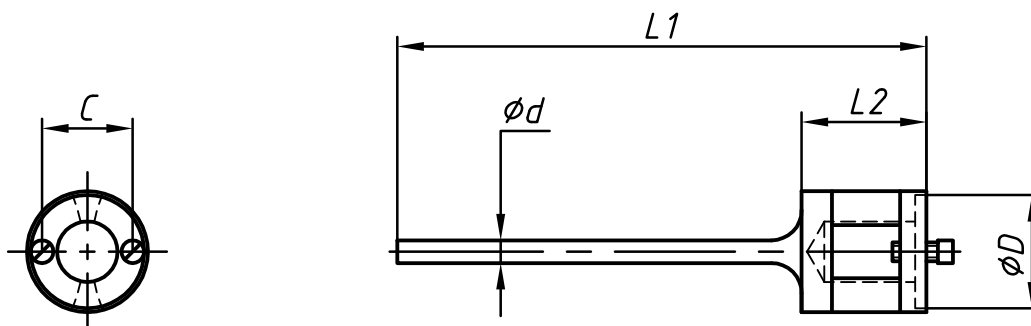
No de cde Bestell Nr Order Nr	Ø d mm	Ø D mm	L1 mm	L2 mm
10320.1607	7	16	76	5
10321.1608	8	16	76	5
10322.2007	7	20	82	5
10323.2007	7	20	82	7
10324.2008	8	20	82	5
10325.2008	8	20	82	7



LONG  
 LANGE  
 LONG

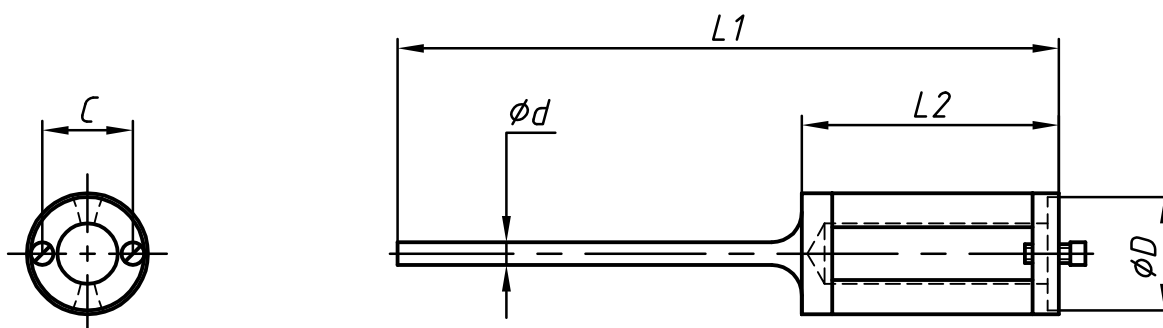
No de cde Bestell Nr Order Nr	Ø d mm	Ø D mm	L1 mm	L2 mm
10330.1607	7	16	87	5
10331.1608	8	16	87	5
10332.2007	7	20	93	5
10333.2007	7	20	93	7
10334.2008	8	20	93	5
10335.2008	8	20	93	7





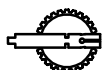
COURT  
 KURZE  
 SHORT

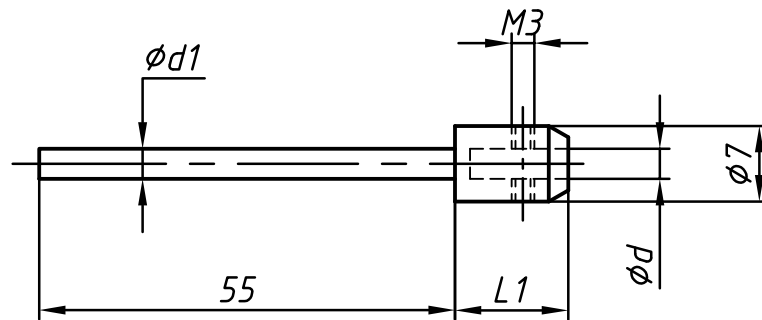
No de cde Bestell Nr Order Nr	$\phi d$ mm	$\phi D$ mm	L1 mm	L2 mm	C mm
10350.1203	3	12	70	15,5	8,25
10350.1204	4	12	70	15,5	8,25
10350.1205	5	12	70	15,5	8,25
10351.1603	3	16	70	16,5	12,20
10351.1604	4	16	70	16,5	12,20
10351.1605	5	16	70	16,5	12,20
10352.2003	3	20	78	27	15
10352.2004	4	20	78	27	15
10352.2005	5	20	78	27	15
10352.2007	7	20	78	27	15
10352.2008	8	20	78	27	15



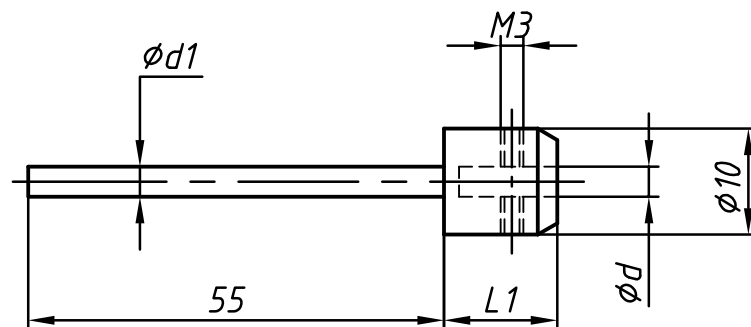
LONG  
 LANGE  
 LONG

No de cde Bestell Nr Order Nr	$\phi d$ mm	$\phi D$ mm	L1 mm	L2 mm	C mm
10353.1203	3	12	88	34	8,25
10353.1204	4	12	88	34	8,25
10353.1205	5	12	88	34	8,25
10354.1603	3	16	88	34	12,20
10354.1604	4	16	88	34	12,20
10354.1605	5	16	88	34	12,20
10355.2003	3	20	92	38	15
10355.2004	4	20	92	38	15
10355.2005	5	20	92	38	15
10355.2007	7	20	92	38	15
10355.2008	8	20	92	38	15





No de cde Bestell Nr Order Nr	$\phi d1$ mm	L1 mm	$\phi d$ mm
10360.0000	3	12	1 - 1,5 - 2 - 2,5
10361.0000	4	12	1 - 1,5 - 2 - 2,5
10362.0000	5	12	1 - 1,5 - 2 - 2,5 - 3
10363.0000	3	20	1 - 1,5 - 2 - 2,5
10364.0000	4	20	1 - 1,5 - 2 - 2,5
10365.0000	5	20	1 - 1,5 - 2 - 2,5 - 3



No de cde Bestell Nr Order Nr	$\phi d1$ mm	L1 mm	$\phi d$ mm
10370.0000	3	12	1 - 1,5 - 2 - 2,5
10371.0000	4	12	1 - 1,5 - 2 - 2,5
10372.0000	5	12	1 - 1,5 - 2 - 2,5 - 3
10373.0000	3	20	1 - 1,5 - 2 - 2,5
10374.0000	4	20	1 - 1,5 - 2 - 2,5
10375.0000	5	20	1 - 1,5 - 2 - 2,5 - 3