

GOUPILLES PINS STIFTEN GRUPILLAS COPIGLIE CAVILHAS

Goupilles fendues

Open-end pins

Splinte

Grupillas hendidas

Copiglie spaccate

Cavilhas rachadas



2

Goupilles moletées

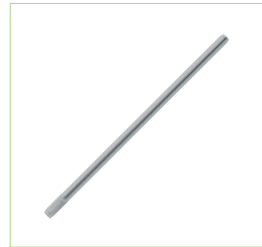
Knurled pins

Gerändelten Stiften

Grupillas moleteadas

Copiglie ziggrinate

Cavilhas serrilhadas



12

Tubes et goupilles avec encoche

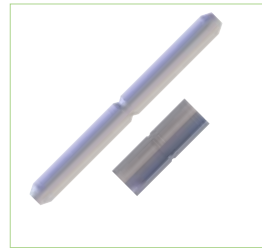
Tubes and pins with notch

Röhre und Stiften mit Kerbe

Tubos y grupillas con muesca

Tubi e copiglie con tacca

Tubos e cavilhas com entalhe



20

Goupilles coniques

Conical pins

Konische Stiften

Grupillas cónicas

Copiglie coniche

Cavilhas cônicas



22



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

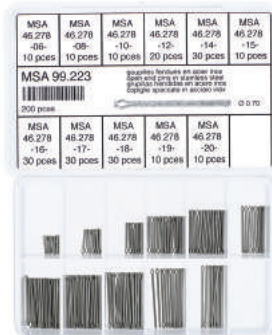
Cavilha rachada ; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.278-04	4	0.002
46.278-06	6	0.003
46.278-08	8	0.003
46.278-10	10	0.004
46.278-12	12	0.004
46.278-14	14	0.005
46.278-15	15	0.005
46.278-16	16	0.006
46.278-17	17	0.006
46.278-18	18	0.007
46.278-19	19	0.007
46.278-20	20	0.007
46.278-21	21	0.007
46.278-22	22	0.007
46.278-23	23	0.008
46.278-24	24	0.009
46.278-25	25	0.009
46.278-26	26	0.009
46.278-27	27	0.009
46.278-28	28	0.009
46.278-29	29	0.010
46.278-30	30	0.011

10
pcs

MSA	Longueur/Length mm	Kg
46.288-04	4	0.001
46.288-06	6	0.001
46.288-08	8	0.001
46.288-10	10	0.001
46.288-12	12	0.001
46.288-14	14	0.001
46.288-15	15	0.001
46.288-16	16	0.001
46.288-17	17	0.001
46.288-18	18	0.001
46.288-19	19	0.001
46.288-20	20	0.001
46.288-21	21	0.001
46.288-22	22	0.001
46.288-23	23	0.001
46.288-24	24	0.001
46.288-25	25	0.001
46.288-26	26	0.001
46.288-27	27	0.001
46.288-28	28	0.001
46.288-29	29	0.001
46.288-30	30	0.001



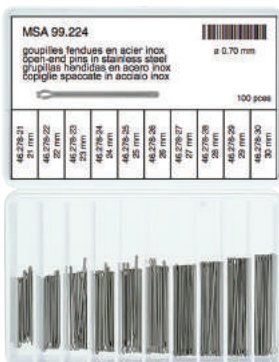
Ø 0.70 mm



Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
11 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.278-06 /-08 /-10 /-15 /-19 /-20
20x MSA46.278-12
30x MSA46.278-14 /-16 /-17 /-18

MSA	Qt.	Kg
99.223	200x	0.034



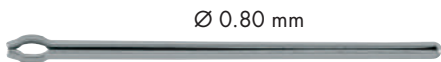
Ø 0.70 mm



Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

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10 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.278-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30

MSA	Qt.	Kg
99.224	100x	0.036



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.279-04	4	0.003
46.279-06	6	0.004
46.279-08	8	0.004
46.279-10	10	0.005
46.279-12	12	0.005
46.279-14	14	0.006
46.279-15	15	0.006
46.279-16	16	0.007
46.279-17	17	0.007
46.279-18	18	0.008
46.279-19	19	0.008
46.279-20	20	0.008
46.279-21	21	0.008
46.279-22	22	0.008
46.279-23	23	0.009
46.279-24	24	0.010
46.279-25	25	0.010
46.279-26	26	0.010
46.279-27	27	0.010
46.279-28	28	0.010
46.279-29	29	0.011
46.279-30	30	0.012

10
pcs

MSA	Longueur/Length mm	Kg
46.289-04	4	0.001
46.289-06	6	0.001
46.289-08	8	0.001
46.289-10	10	0.001
46.289-12	12	0.001
46.289-14	14	0.001
46.289-15	15	0.001
46.289-16	16	0.001
46.289-17	17	0.001
46.289-18	18	0.001
46.289-19	19	0.001
46.289-20	20	0.002
46.289-21	21	0.002
46.289-22	22	0.002
46.289-23	23	0.002
46.289-24	24	0.002
46.289-25	25	0.002
46.289-26	26	0.002
46.289-27	27	0.002
46.289-28	28	0.002
46.289-29	29	0.002
46.289-30	30	0.002



Ø 0.80 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortiment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

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11 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.279-06 /-08 /-10 /-15 /-19 /-20
20x MSA46.279-12
30x MSA46.279-14 /-16 /-17 /-18

MSA	Qt.	Kg
99.137	200x	0.040



Ø 0.80 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortiment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

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10 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.279-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30

MSA	Qt.	Kg
99.145	100x	0.035



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.280-04	4	0.003
46.280-06	6	0.004
46.280-08	8	0.004
46.280-10	10	0.005
46.280-12	12	0.005
46.280-14	14	0.006
46.280-15	15	0.006
46.280-16	16	0.007
46.280-17	17	0.007
46.280-18	18	0.008
46.280-19	19	0.008
46.280-20	20	0.008
46.280-21	21	0.008
46.280-22	22	0.008
46.280-23	23	0.009
46.280-24	24	0.010
46.280-25	25	0.010
46.280-26	26	0.010
46.280-27	27	0.010
46.280-28	28	0.010
46.280-29	29	0.011
46.280-30	30	0.012

10
pcs

MSA	Longueur/Length mm	Kg
46.290-04	4	0.001
46.290-06	6	0.001
46.290-08	8	0.001
46.290-10	10	0.001
46.290-12	12	0.001
46.290-14	14	0.001
46.290-15	15	0.001
46.290-16	16	0.001
46.290-17	17	0.001
46.290-18	18	0.001
46.290-19	19	0.001
46.290-20	20	0.002
46.290-21	21	0.002
46.290-22	22	0.002
46.290-23	23	0.002
46.290-24	24	0.002
46.290-25	25	0.002
46.290-26	26	0.002
46.290-27	27	0.002
46.290-28	28	0.002
46.290-29	29	0.002
46.290-30	30	0.002

MSA 46.280 -06- 10 pces	MSA 46.280 -08- 10 pces	MSA 46.280 -10- 10 pces	MSA 46.280 -12- 20 pces	MSA 46.280 -14- 30 pces	MSA 46.280 -15- 10 pces
MSA 99.048 200 pces goupilles fendues en acier inox Open-end pins in stainless steel grupillas hendidas en acero inox Copiglie spaccate in acciaio inox Ø 0.90					
MSA 46.280 -15- 30 pces	MSA 46.280 -17- 30 pces	MSA 46.280 -18- 30 pces	MSA 46.280 -19- 10 pces	MSA 46.280 -20- 10 pces	



Ø 0.90 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

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10x MSA46.280-06 /-08 /-10 /-15 /-19 /-20

20x MSA46.280-12

30x MSA46.280-14 /-16 /-17 /-18

MSA	Qt.	Kg
99.048	200x	0.041

Assortiment MSA 99.146		100 pces
Goupilles fendues, acier inox Open-end pins, stain. steel Grupillas hendidas, acero inox Copiglie spaccate, acciaio inox		Ø 0.90 mm
46.280-21 21 mm 46.280-22 22 mm 46.280-23 23 mm 46.280-24 24 mm 46.280-25 25 mm 46.280-26 26 mm 46.280-27 27 mm 46.280-28 28 mm 46.280-29 29 mm 46.280-30 30 mm		



Ø 0.90 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :

10 modèles - models - Modelle - modelos - modelli - modelos

10x MSA46.280-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30

MSA	Qt.	Kg
99.146	100x	0.028

Ø 1.00 mm



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.281-04	4	0.004
46.281-06	6	0.006
46.281-08	8	0.007
46.281-10	10	0.010
46.281-12	12	0.011
46.281-14	14	0.013
46.281-15	15	0.014
46.281-16	16	0.015
46.281-17	17	0.015
46.281-18	18	0.017
46.281-19	19	0.017
46.281-20	20	0.018
46.281-21	21	0.019
46.281-22	22	0.020
46.281-23	23	0.020
46.281-24	24	0.021
46.281-25	25	0.022
46.281-26	26	0.024
46.281-27	27	0.024
46.281-28	28	0.025
46.281-29	29	0.026
46.281-30	30	0.027

10
pcs

MSA	Longueur/Length mm	Kg
46.291-04	4	0.001
46.291-06	6	0.001
46.291-08	8	0.001
46.291-10	10	0.001
46.291-12	12	0.001
46.291-14	14	0.001
46.291-15	15	0.001
46.291-16	16	0.002
46.291-17	17	0.002
46.291-18	18	0.002
46.291-19	19	0.002
46.291-20	20	0.002
46.291-21	21	0.002
46.291-22	22	0.002
46.291-23	23	0.002
46.291-24	24	0.002
46.291-25	25	0.002
46.291-26	26	0.003
46.291-27	27	0.003
46.291-28	28	0.003
46.291-29	29	0.003
46.291-30	30	0.003



Ø 1.00 mm



Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
11 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.281-06 /-08 /-10 /-15 /-19 /-20
20x MSA46.281-12
30x MSA46.281-14 /-16 /-17 /-18

MSA	Qt.	Kg
99.049	200x	0.045



Ø 1.00 mm



Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
11 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.281-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30

MSA	Qt.	Kg
99.147	100x	0.028

Ø 1.20 mm



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.282-04	4	0.004
46.282-06	6	0.006
46.282-08	8	0.007
46.282-10	10	0.010
46.282-12	12	0.011
46.282-14	14	0.013
46.282-15	15	0.014
46.282-16	16	0.015
46.282-17	17	0.015
46.282-18	18	0.017
46.282-19	19	0.017
46.282-20	20	0.018
46.282-21	21	0.019
46.282-22	22	0.020
46.282-23	23	0.020
46.282-24	24	0.021
46.282-25	25	0.022
46.282-26	26	0.024
46.282-27	27	0.024
46.282-28	28	0.025
46.282-29	29	0.026
46.282-30	30	0.027

10
pcs

MSA	Longueur/Length mm	Kg
46.292-04	4	0.001
46.292-06	6	0.001
46.292-08	8	0.001
46.292-10	10	0.001
46.292-12	12	0.001
46.292-14	14	0.001
46.292-15	15	0.001
46.292-16	16	0.002
46.292-17	17	0.002
46.292-18	18	0.002
46.292-19	19	0.002
46.292-20	20	0.002
46.292-21	21	0.002
46.292-22	22	0.002
46.292-23	23	0.002
46.292-24	24	0.002
46.292-25	25	0.002
46.292-26	26	0.003
46.292-27	27	0.003
46.292-28	28	0.003
46.292-29	29	0.003
46.292-30	30	0.003



Ø 1.20 mm



Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
11 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.282-06 /-08 /-10 /-15 /-19 /-20
20x MSA46.282-12
30x MSA46.282-14 /-16 /-17 /-18

MSA	Qt.	Kg
99.081	200x	0.051



Ø 1.20 mm

Assortiment de goupilles fendues ; acier inoxydable.
 Assortment of open-end pins ; stainless steel.
 Sortiment von Splinte ; Edelstahl.
 Surtido de grupillas hendidas ; acero inoxidable.
 Assortimento di copiglie spaccate ; acciaio inossidabile.
 Sortido de cavilhas rachadas ; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
10 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.282-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30

MSA	Qt.	Kg
99.148	100x	0.050

Ø 0.90 mm



Goupille moletée; acier inoxydable.

Knurled pin; stainless steel.

Gerändelter Stift; Edelstahl.

Grupilla moleteada; acero inoxidable.

Copiglia zigrinata; acciaio inossidabile.

Cavilha serrilhada; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.283-06	6	0.004
46.283-08	8	0.005
46.283-10	10	0.007
46.283-12	12	0.009
46.283-14	14	0.010
46.283-16	16	0.011
46.283-17	17	0.012
46.283-18	18	0.013
46.283-19	19	0.014
46.283-20	20	0.014
46.283-21	21	0.015
46.283-22	22	0.016
46.283-24	24	0.018
46.283-26	26	0.019
46.283-28	28	0.021
46.283-30	30	0.022

10
pcs

MSA	Longueur/Length mm	Kg
46.293-06	6	0.001
46.293-08	8	0.001
46.293-10	10	0.001
46.293-12	12	0.001
46.293-14	14	0.001
46.293-16	16	0.001
46.293-17	17	0.001
46.293-18	18	0.001
46.293-19	19	0.001
46.293-20	20	0.001
46.293-21	21	0.001
46.293-22	22	0.001
46.293-24	24	0.001
46.293-26	26	0.001
46.293-28	28	0.001
46.293-30	30	0.001

46.283 -06mm 10 pcs	46.283 -08mm 10 pcs	46.283 -10mm 10 pcs	46.283 -12mm 16 pcs	46.283 -14mm 10 pcs	46.283 -16mm 30 pcs
goupilles moletées en acier inox knurled pins in stainless steel grupillas moleteadas en acero inox copiglie zigrinate in acciaio inox					
Ø 0.90					
MSA 99.133					
200 pcs					
46.283 -17mm 10 pcs	46.283 -18mm 40 pcs	46.283 -19mm 10 pcs	46.283 -20mm 40 pcs	46.283 -21mm 10 pcs	46.283 -22mm 10 pcs



Ø 0.90 mm

Assortiment de goupilles moletées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

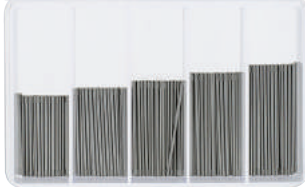
Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
12 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.283-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22
30x MSA46.283-16
40x MSA46.283-18 /-20

MSA	Qt.	Kg
99.133	200x	0.027

MSA 46.283 -22	MSA 46.283 -24	MSA 46.283 -26	MSA 46.283 -28	MSA 46.283 -30
goupilles moletées en acier inox knurled pins in stainless steel grupillas moleteadas en acero inox copiglie zigrinate in acciaio inox				
Ø 0.90 mm				
MSA 99.210				
200 pcs				



Ø 0.90 mm

Assortiment de goupilles moletées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
5 modèles - models - Modelle - modelos - modelli - modelos
40x MSA46.283-22 /-24 /-26 /-28 /-30

MSA	Qt.	Kg
99.210	200x	0.050

Ø 1.00 mm



Goupille moletée; acier inoxydable.

Knurled pin; stainless steel.

Gerändelter Stift; Edelstahl.

Grupilla moleteada; acero inoxidable.

Copiglia zigrinata; acciaio inossidabile.

Cavilha serrilhada; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.284-06	6	0.004
46.284-08	8	0.005
46.284-10	10	0.007
46.284-12	12	0.009
46.284-14	14	0.010
46.284-16	16	0.011
46.284-17	17	0.012
46.284-18	18	0.013
46.284-19	19	0.014
46.284-20	20	0.014
46.284-21	21	0.015
46.284-22	22	0.016
46.284-24	24	0.018
46.284-26	26	0.019
46.284-28	28	0.021
46.284-30	30	0.022

10
pcs

MSA	Longueur/Length mm	Kg
46.294-06	6	0.001
46.294-08	8	0.001
46.294-10	10	0.001
46.294-12	12	0.001
46.294-14	14	0.001
46.294-16	16	0.001
46.294-17	17	0.001
46.294-18	18	0.001
46.294-19	19	0.001
46.294-20	20	0.001
46.294-21	21	0.001
46.294-22	22	0.001
46.294-24	24	0.001
46.294-26	26	0.001
46.294-28	28	0.001
46.294-30	30	0.001

46.284 -06mm 10 pcs	46.284 -08mm 10 pcs	46.284 -10mm 10 pcs	46.284 -12mm 10 pcs	46.284 -14mm 10 pcs	46.284 -18mm 30 pcs
goupilles molétées en acier inox knurled pins in stainless steel grupillas moleteadas en acero inox copiglie zigrinate in acciaio inox MSA 99.134 200 pcs					
46.284 -17mm 10 pcs	46.284 -18mm 40 pcs	46.284 -19mm 10 pcs	46.284 -20mm 40 pcs	46.284 -21mm 10 pcs	46.284 -22mm 10 pcs



Ø 1.00 mm

Assortiment de goupilles molétées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

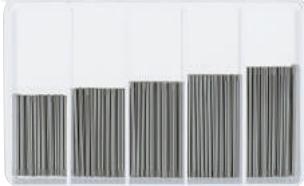
Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
12 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.284-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22
30x MSA46.284-16
40x MSA46.284-18 /-20

MSA	Qt.	Kg
99.134	200x	0.027

MSA 46.284 -22	MSA 46.284 -24	MSA 46.284 -26	MSA 46.284 -28	MSA 46.284 -30
goupilles molétées en acier inox knurled pins in stainless steel grupillas moleteadas en acero inox copiglie zigrinate in acciaio inox Ø 1.00 mm MSA 99.211 200 pcs				



Ø 1.00 mm

Assortiment de goupilles molétées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
5 modèles - models - Modelle - modelos - modelli - modelos
40x MSA46.284-22 /-24 /-26 /-28 /-30

MSA	Qt.	Kg
99.211	200x	0.056

Ø 1.10 mm



Goupille moletée; acier inoxydable.

Knurled pin; stainless steel.

Gerändelter Stift; Edelstahl.

Grupilla moleteada; acero inoxidable.

Copiglia zigrinata; acciaio inossidabile.

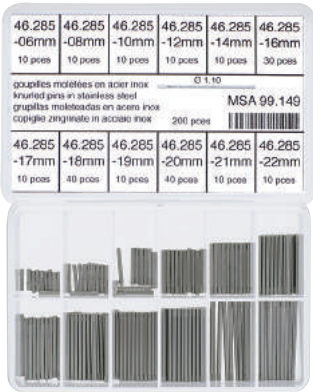
Cavilha serrilhada; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.285-06	6	0.005
46.285-08	8	0.006
46.285-10	10	0.008
46.285-12	12	0.010
46.285-14	14	0.011
46.285-16	16	0.012
46.285-17	17	0.013
46.285-18	18	0.014
46.285-19	19	0.015
46.285-20	20	0.015
46.285-21	21	0.016
46.285-22	22	0.017
46.285-24	24	0.019
46.285-26	26	0.020
46.285-28	28	0.022
46.285-30	30	0.023

10
pcs

MSA	Longueur/Length mm	Kg
46.295-06	6	0.001
46.295-08	8	0.001
46.295-10	10	0.001
46.295-12	12	0.001
46.295-14	14	0.001
46.295-16	16	0.001
46.295-17	17	0.001
46.295-18	18	0.001
46.295-19	19	0.001
46.295-20	20	0.001
46.295-21	21	0.001
46.295-22	22	0.001
46.295-24	24	0.001
46.295-26	26	0.001
46.295-28	28	0.001
46.295-30	30	0.001



MSA	Qt.	Kg
99.149	200x	0.050

Ø 1.10 mm

Assortiment de goupilles moletées; acier inoxydable.
Assortment of knurled pins; stainless steel.
 Sortiment von gerändelten Stiften; Edelstahl.
Surtido de grupillas moleteadas; acero inoxidable.
 Assortimento di copiglie zigrinate; acciaio inossidabile.
Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
12 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.285-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22
30x MSA46.285-16
40x MSA46.285-18 /-20



MSA	Qt.	Kg
99.212	200x	0.063

Ø 1.10 mm

Assortiment de goupilles moletées; acier inoxydable.
Assortment of knurled pins; stainless steel.
 Sortiment von gerändelten Stiften; Edelstahl.
Surtido de grupillas moleteadas; acero inoxidable.
 Assortimento di copiglie zigrinate; acciaio inossidabile.
Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
5 modèles - models - Modelle - modelos - modelli - modelos
40x MSA46.285-22 /-24 /-26 /-28 /-30

Ø 1.20 mm



Goupille moletée; acier inoxydable.

Knurled pin; stainless steel.

Gerändelter Stift; Edelstahl.

Grupilla moleteada; acero inoxidable.

Copiglia zigrinata; acciaio inossidabile.

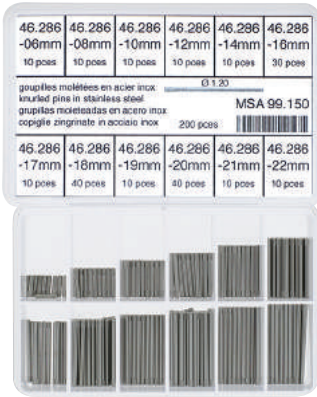
Cavilha serrilhada; aço inoxidável.

100
pcs

MSA	Longueur/Length mm	Kg
46.286-06	6	0.006
46.286-08	8	0.008
46.286-10	10	0.009
46.286-12	12	0.011
46.286-14	14	0.013
46.286-16	16	0.015
46.286-17	17	0.015
46.286-18	18	0.017
46.286-19	19	0.017
46.286-20	20	0.018
46.286-21	21	0.019
46.286-22	22	0.020
46.286-24	24	0.021
46.286-26	26	0.023
46.286-28	28	0.025
46.286-30	30	0.027

10
pcs

MSA	Longueur/Length mm	Kg
46.296-06	6	0.001
46.296-08	8	0.001
46.296-10	10	0.001
46.296-12	12	0.001
46.296-14	14	0.001
46.296-16	16	0.001
46.296-17	17	0.001
46.296-18	18	0.001
46.296-19	19	0.001
46.296-20	20	0.001
46.296-21	21	0.001
46.296-22	22	0.001
46.296-24	24	0.001
46.296-26	26	0.001
46.296-28	28	0.001
46.296-30	30	0.001

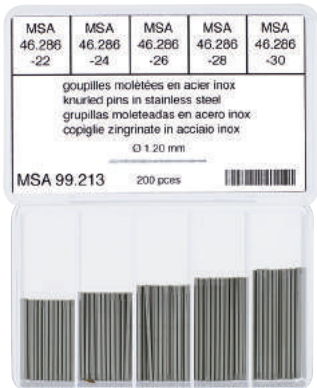


MSA	Qt.	Kg
99.150	200x	0.054

Ø 1.20 mm

Assortiment de goupilles moletées; acier inoxydable.
 Assortment of knurled pins; stainless steel.
 Sortiment von gerändelten Stiften; Edelstahl.
 Surtido de grupillas moleteadas; acero inoxidable.
 Assortimento di copiglie zigrinate; acciaio inossidabile.
 Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
12 modèles - models - Modelle - modelos - modelli - modelos
10x MSA46.286-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22
30x MSA46.286-16
40x MSA46.286-18 /-20

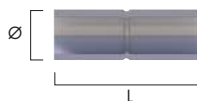
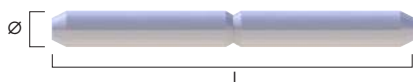


MSA	Qt.	Kg
99.213	200x	0.070

Ø 1.20 mm

Assortiment de goupilles moletées; acier inoxydable.
 Assortment of knurled pins; stainless steel.
 Sortiment von gerändelten Stiften; Edelstahl.
 Surtido de grupillas moleteadas; acero inoxidable.
 Assortimento di copiglie zigrinate; acciaio inossidabile.
 Sortido de cavilhas serrilhadas; aço inoxidável.

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
5 modèles - models - Modelle - modelos - modelli - modelos
40x MSA46.286-22 /-24 /-26 /-28 /-30



10
pcs

MSA	Tube/Tube L x Ø mm	Goupille/Pin L x Ø mm	Kg
46.815-10	12 x 1.00	30 x 0.70	0.003
46.815-11	12 x 1.10	30 x 0.80	0.003
46.815-12	12 x 1.20	30 x 0.90	0.003
46.815-13	12 x 1.30	30 x 1.00	0.003
46.815-15	12 x 1.50	30 x 1.10	0.003
46.815-16	12 x 1.60	30 x 1.20	0.003
46.815-17	12 x 1.70	30 x 1.30	0.003
46.815-18	12 x 1.80	30 x 1.40	0.003

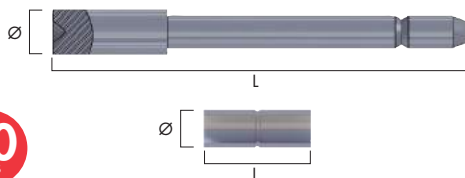
Tube et goupille avec **encoche centrale** ; acier inoxydable.
 Tube and pin with **central notch** ; stainless steel.
 Rohr und Stift mit **zentraler Kerbe** ; Edelstahl.
 Tubo y grupilla con **muesca central** ; acero inoxidable.
 Tubo e copiglia con **tacca centrale** ; acciaio inossidabile.
 Tubo e cavilha com **entalhe central** ; aço inoxidável.



Assortiment de tubes et goupilles avec **encoche centrale** ; acier inoxydable.
 Assortment of tubes and pins with **central notch** ; stainless steel.
 Sortiment von Röhre und Stiften mit **zentraler Kerbe** ; Edelstahl.
 Surtido de tubos y grupillas con **muesca central** ; acero inoxidable.
 Assortimento di tubi e copiglie con **tacca centrale** ; acciaio inossidabile.
 Sortido de tubos e cavilhas com **entalhe central** ; aço inoxidável.

MSA	Qt.	Kg
99.251	40x + 40x	0.040

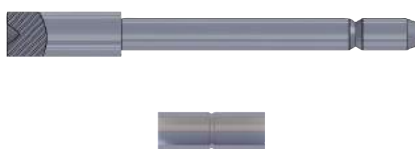
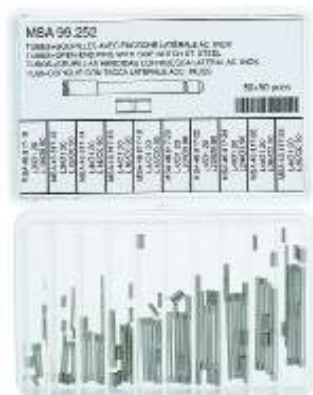
Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
8 modèles - models - Modelle - modelos - modelli - modelos
5x MSA46.815-10 /-11 /-12 /-13 /-15 /-16 /-17 /-18



Tube et goupille avec **encoche latérale** ; acier inoxydable.
 Tube and pin with **side notch** ; stainless steel.
 Rohr und Stift mit **seiten Kerbe** ; Edelstahl.
 Tubo y grupilla con **muesca lateral** ; acero inoxidable.
 Tubo e copiglia con **tacca laterale** ; acciaio inossidabile.
 Tubo e cavilha com **entalhe lateral** ; aço inoxidável.

MSA	Tube/Tube L x Ø mm	Goupille/Pin L x Ø mm	Kg
46.817-08	3 x 1.20	8 x 0.90	0.004
46.817-09	3 x 1.20	9 x 0.90	0.004
46.817-10	3 x 1.20	10 x 0.90	0.004
46.817-11	3 x 1.20	11 x 0.90	0.004
46.817-12	3 x 1.20	12 x 0.90	0.004
46.817-13	3 x 1.20	13 x 0.90	0.004
46.817-14	4 x 1.20	14 x 0.90	0.004
46.817-15	4 x 1.20	15 x 0.90	0.004
46.817-16	4 x 1.20	16 x 0.90	0.004
46.817-17	4 x 1.20	17 x 0.90	0.004
46.817-18	4 x 1.20	18 x 0.90	0.004
46.817-19	4 x 1.20	19 x 0.90	0.004

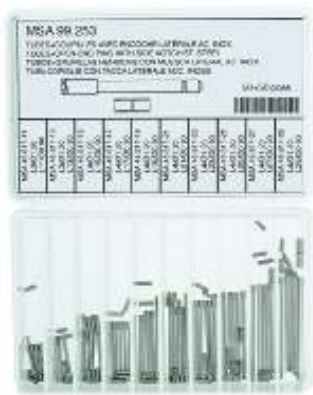
MSA	Tube/Tube L x Ø mm	Goupille/Pin L x Ø mm	Kg
46.817-20	4 x 1.20	20 x 0.90	0.004
46.817-21	4 x 1.20	21 x 0.90	0.004
46.817-22	4 x 1.20	22 x 0.90	0.004
46.817-23	4 x 1.20	23 x 0.90	0.004
46.817-24	4 x 1.20	24 x 0.90	0.004
46.817-25	4 x 1.20	25 x 0.90	0.004
46.817-26	4 x 1.20	26 x 0.90	0.004
46.817-27	4 x 1.20	27 x 0.90	0.004
46.817-28	4 x 1.20	28 x 0.90	0.004
46.817-29	4 x 1.20	29 x 0.90	0.004
46.817-30	4 x 1.20	30 x 0.90	0.004



Assortiment de tubes et goupilles avec **encoche latérale** ; acier inoxydable.
 Assortment of tubes and pins with **side notch** ; stainless steel.
 Sortiment von Röhre und Stiften mit **seiten Kerbe** ; Edelstahl.
 Surtido de tubos y grupillas con **muesca lateral** ; acero inoxidable.
 Assortimento di tubi e copiglie con **tacca laterale** ; acciaio inossidabile.
 Sortido de tubos e cavilhas com **entalhe lateral** ; aço inoxidável.

MSA	Qt.	Kg
99.252	50x + 50x	0.050

Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :
10 modèles - models - Modelle - modelos - modelli - modelos
5x MSA46.817-10 /-12 /-14 /-16 /-18 /-20 /-22 /-24 /-26 /-28



Assortiment de tubes et goupilles avec **encoche latérale** ; acier inoxydable.
 Assortment of tubes and pins with **side notch** ; stainless steel.
 Sortiment von Röhre und Stiften mit **seiten Kerbe** ; Edelstahl.
 Surtido de tubos y grupillas con **muesca lateral** ; acero inoxidable.
 Assortimento di tubi e copiglie con **tacca laterale** ; acciaio inossidabile.
 Sortido de tubos e cavilhas com **entalhe lateral** ; aço inoxidável.

MSA	Qt.	Kg
99.253	50x + 50x	0.050



Assortiment de goupilles coniques ; laiton.
 Assortment of conical pins ; brass.
 Sortiment von konische Stiften ; Messing.
 Surtido de grupillas cónicas ; latón.
 Assortimento di copiglie coniche ; ottone.
 Sortido de cavilhas cónicas ; latão.

PERF	Qt.	Kg
48.000	100x	0.027



Assortiment de goupilles coniques ; acier.
 Assortment of conical pins ; steel.
 Sortiment von konische Stiften ; Stahl.
 Surtido de grupillas cónicas ; acero.
 Assortimento di copiglie coniche ; acciaio.
 Sortido de cavilhas cónicas ; aço.

PERF	Qt.	Kg
48.001	100x	0.026