Instructions for Use External Fixation and Distraction Systems

This instruction for use is not intended for distribution in the USA.

Not all products are currently available in all markets.



Instructions for Use

External Fixation and Distraction Systems

Devices in scope:

introne:253.800254.725124.743644.44.81253.800254.73624.73644.44.43253.801254.73624.73644.44.43252.911254.00.04.8124.746.444.46.31252.91124.10.00.4124.746.444.46.31251.90224.702.424.746.444.46.31251.90324.702.424.746.444.40.31251.90324.702.424.746.444.40.31253.900024.450.424.745.444.20.31253.900024.440.424.745.444.50.31253.900024.440.424.745.444.50.31253.900024.440.424.747.444.50.31253.900024.440.424.747.444.50.31253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.440.424.747.444.50.4253.900024.450.424.757.444.50.4253.900024.450.424.757.444.50.4253.900024.450.424.757.444.50.4253.900024.555.424.756.444.757.4253.900024.555.424.756.444.757.4253.900024.555.424.756.444.757.4253.900024.555.4 <th></th> <th></th> <th></th> <th></th>				
B31201299403294783494.40332037294004247834494.40332047244034247834494.40332047244004247834494.403321100244004247844444.00110002400443247854444.00110002400443247854444.00110002400443247854444.0011000244.001247854444.0011000244.001247854444.00123000132244.405247854444.50523000132244.405247854445.50123100132244.405247824445.50123100132244.405247824445.50123140244.405247824445.50123140244.405247824445.50123140244.505247824445.50123140244.505247.724445.50123140244.505247.724445.50123140244.505247.724445.50123150244.505247.724447.50123240244.505247.724447.50123240244.505247.724447.50123250244.505247.724447.75123265245.5051247.754447.751232665245.5051247.754447.751232665245.5051247.754447.751232665245.5051247.754447.751232665245.5051247.754	Instruments:	293 8905	294 782SHA	494 4305
32036204,785244,785444,46332037124,000,42424,78344,4633203124,000,42424,78344,463321311,00224,000,42424,78344,60324,50524,78544,60344,60323,505,00224,47824,78344,60323,505,00224,47824,78344,50323,505,00224,48524,78844,50323,505,00224,44524,78844,50323,505,00224,44524,78844,50323,505,00224,44524,78844,50323,10624,44524,78744,50323,10724,44524,78744,50323,10724,44524,78744,50323,10724,45024,79344,50323,10724,45024,79344,60323,10724,45024,79344,60323,20824,50524,79344,60323,20724,50524,79344,60323,20824,50524,79344,60323,20824,50524,79344,60323,20824,50524,79344,60323,20824,50524,79344,60323,20824,50524,79444,60323,20824,50524,79544,60323,20824,50524,79544,60323,20824,50524,79544,60323,20824,50524,79544,60323,20824,50524,79544,603<				
B202071QM 000/Q5QM 000/Q5QM 000/Q5QM 000/Q5QM 000/Q5B20311QM 000/Q5QM 000/Q5QM 000/Q5QM 000/Q5B21312QM 000/Q5QM 000/Q5QM 000/Q5QM 000/Q5B21312QM 000/Q5QM 000/Q5QM 000/Q5QM 000/Q5B1000007QM 4050QM 7050QM 000/Q5QM 000/Q5QM 000/Q5QM 4050QM 7050QM 7050QM 000/Q5QM 000/Q5QM 400/Q5QM 7051QM 705QM 705QM 000/Q5QM 400/Q5QM 7051QM 705QM 705QM 000/Q5QM 7051QM 7051QM 705QM 705QM 000/Q5QM 7051QM 7051QM 705QM 705QM 200/Q5QM 7051QM 7051QM 705QM 705QM 200/Q5QM 7051QM 7051QM 705QM 705QM 200/Q5QM 7051QM 7051QM 7051QM 7051QM 200/Q5QM 7051QM 7051QM 7051<				
B221124,002,4524,74544,449D1 311.06824,000,4524,745,0044,449D1 311.06824,000,4424,745,0044,449D2 305,05024,43024,755,1444,250D2 305,05024,43024,785,1444,520D2 305,05024,43024,785,1444,520D2 305,05024,43024,785,1444,520D2 301,0724,44024,785,1444,530D2 313024,44724,785,1444,530D2 313024,44724,785,1444,530D2 313024,45024,785,1444,530D2 313024,45024,785,1444,530D2 313024,45024,793,1444,530D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 32,2024,450,1424,793,1444,600D2 32,2024,450,1424,793,1444,600D2 32,2024,500,1424,795,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2	392.903	293.940S	294.7835	494.440S
B221124,002,4524,74544,449D1 311.06824,000,4524,745,0044,449D1 311.06824,000,4424,745,0044,449D2 305,05024,43024,755,1444,250D2 305,05024,43024,785,1444,520D2 305,05024,43024,785,1444,520D2 305,05024,43024,785,1444,520D2 301,0724,44024,785,1444,530D2 313024,44724,785,1444,530D2 313024,44724,785,1444,530D2 313024,45024,785,1444,530D2 313024,45024,785,1444,530D2 313024,45024,793,1444,530D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 313024,45024,793,1444,500D2 32,2024,450,1424,793,1444,600D2 32,2024,450,1424,793,1444,600D2 32,2024,500,1424,795,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2024,500,1424,796,1444,775D2 32,2	392.907	294.000.425	294.783SHA	494,445
BAD 3124 Jan 300 (3)24 Jan 300 (4)44 Jan 300 (4)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)131 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 1000 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2)24 Jan 300 (2)24 Jan 300 (2)231 Jan 30 (2)24 Jan 300 (2) <t< td=""><td></td><td></td><td></td><td></td></t<>				
Barbon244 200244 205444 400implant:204 305244 785444 400203 000 302204 400241 785494 300203 000 302204 400241 785494 300203 000 302204 400241 785494 300203 000 302204 405241 785494 300203 000 302204 405241 785494 300203 100 522204 405241 785494 500203 100 523204 405241 785494 500203 100 524204 405241 785494 500203 100 524204 405241 793494 500203 100 524204 405241 793494 500203 100 524204 405241 793494 500203 100 524204 405241 793494 500203 100 524204 405241 793494 500203 201 524204 405241 793494 500203 201 524204 405241 793494 500203 201 524204 405241 793494 500203 201 524204 405241 793494 500203 201 524204 405241 795494 500203 201 524204 405241 795494 500203 202 526204 405241 795494 500203 203 526204 505241 795494 500203 204 526204 505241 795494 500203 205 526204 505204 795494 500203 206 526204 505204 795494 500203 207 526204 505				
implant:294,305294,735494,40502.305,057294,435294,735494,40502.305,057294,435294,785494,507293,050294,445294,785494,507293,130294,445294,785494,507293,130294,455294,785494,507293,130294,455294,785494,507293,140294,650294,785494,507293,140294,650294,785494,507293,145294,455294,785494,507293,145294,450294,785494,507293,145294,450294,735494,507293,155294,450294,735494,507293,255294,450294,735494,507293,256294,450294,735494,507293,257294,450294,735494,607293,257294,450294,735494,607293,257294,450294,735494,607293,257294,450294,735494,607293,257294,505294,735494,607293,257294,505294,735494,607293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,775293,257294,505294,755494,	392.913	294.000.453	294.7845	494.450
implant:294,305294,735494,40502.305,057294,435294,735494,40502.305,057294,435294,785494,507293,050294,445294,785494,507293,130294,445294,785494,507293,130294,455294,785494,507293,130294,455294,785494,507293,140294,650294,785494,507293,140294,650294,785494,507293,145294,455294,785494,507293,145294,450294,785494,507293,145294,450294,735494,507293,155294,450294,735494,507293,255294,450294,735494,507293,256294,450294,735494,507293,257294,450294,735494,607293,257294,450294,735494,607293,257294,450294,735494,607293,257294,450294,735494,607293,257294,505294,735494,607293,257294,505294,735494,607293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,707293,257294,505294,735494,775293,257294,505294,755494,	03.311.008	294.000.454	294.784SHA	494.450S
Implants:294.430294.785/h494.5002.306.0307294.430294.785/h494.52002.306.0307294.430294.785/h494.50293.030294.441294.785/h494.50293.195294.445294.785/h494.50293.195294.445294.785/h494.50293.195294.445294.785/h494.50293.195294.455294.785/h494.505293.195294.455294.792494.505293.195294.456294.792494.505293.195294.460294.792494.505293.195294.460294.792494.505293.295294.460294.793494.505293.295294.406294.793494.605293.296294.304294.793494.605293.296294.304294.795494.605293.297294.304294.795494.605293.296294.304294.795494.605293.297294.305294.795494.605293.297294.305294.795494.705293.296294.596294.795494.705293.297294.596294.795494.705293.296294.596494.795494.705293.297294.596493.396494.775293.296294.596493.396494.775293.296294.596493.396494.775293.296294.596493.496494.775293.296294.596493.496	00.0111000			
Dir. Binbib294.430294.785/h494.500293.00.015/2294.430294.786/h494.501293.00.015/2294.430294.786/h494.501293.00.015/2294.430294.786/h494.501293.100294.440294.785/h494.501293.101294.450294.785/h494.502293.102294.450294.785/h494.505293.102294.450294.792494.505293.103294.450294.792494.505293.104294.450294.792494.505293.205294.460294.793494.505293.205294.460294.793494.505293.205294.460294.793494.505293.205294.460294.793494.603293.205294.506294.793494.603293.205294.507294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.603293.205294.506294.795494.707293.205294.506494.707494.707293.205294.506494.707494.707293.205294.506493.400494.775293.206294.506 </td <td></td> <td></td> <td></td> <td></td>				
D2.35.D07P44.453P44.786P45.786233.003.32244.463244.78654A445.536233.003.32244.463244.78654A445.536233.110294.463244.78654A445.505233.140294.400244.7925445.505233.140294.400244.7925445.505233.155244.405244.7925445.505233.156294.400244.7925455.605233.157294.405244.7925455.605233.127294.405244.7925455.605233.237294.230244.7925455.605233.238294.230244.793456.605233.237294.230244.794446.607233.240294.5205244.793446.607233.241294.5205244.794446.607233.242294.5205244.794446.607233.243294.5205244.795444.607233.243294.5205244.795444.607233.243294.5205244.795444.775233.244294.5205244.796444.775233.250294.5205244.796444.775233.250294.505244.796444.775233.250294.505433.605447.775233.250294.505433.605447.775233.261294.605433.605447.775233.262294.605434.605447.775233.263294.605433.605447.775233.264294.605 <td>Implants:</td> <td>294.300S</td> <td>294.785S</td> <td>494.460S</td>	Implants:	294.300S	294.785S	494.460S
D2.35.D07P44.453P44.786P45.786233.003.32244.463244.78654A445.536233.003.32244.463244.78654A445.536233.110294.463244.78654A445.505233.140294.400244.7925445.505233.140294.400244.7925445.505233.155244.405244.7925445.505233.156294.400244.7925455.605233.157294.405244.7925455.605233.127294.405244.7925455.605233.237294.230244.7925455.605233.238294.230244.793456.605233.237294.230244.794446.607233.240294.5205244.793446.607233.241294.5205244.794446.607233.242294.5205244.794446.607233.243294.5205244.795444.607233.243294.5205244.795444.607233.243294.5205244.795444.775233.244294.5205244.796444.775233.250294.5205244.796444.775233.250294.505244.796444.775233.250294.505433.605447.775233.250294.505433.605447.775233.261294.605433.605447.775233.262294.605434.605447.775233.263294.605433.605447.775233.264294.605 <td>02 306 006</td> <td>294 430</td> <td>294 785SHA</td> <td>494 520</td>	02 306 006	294 430	294 785SHA	494 520
241 00.107244 40244 785444.510233 100204.405204.785444.540233 101204.405244.785444.540233 102204.405244.785444.540231 104204.405244.785444.560231 105204.405204.725444.560231 105204.405204.725444.560231 105204.405204.725444.50231 105204.405244.735444.50231 201204.605244.735444.50231 202204.505244.735444.60232 301204.505244.735444.60232 302204.505244.735444.60233 203204.505244.735444.60233 204204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505244.735444.60233 205204.505444.7770.70233 205204.505444.7770.70233 205204.505444.78444.60233 205204.505444.7870.77233 205				
293.00.322204.405294.7861-44494.590293.130294.4455294.7861-44494.590293.140294.4851294.7851-14494.590293.140294.4801294.7751-14494.590293.140294.4801294.7751-14494.590293.120294.4901294.7751-14494.590293.220294.4905294.7753494.590293.220294.4903294.7351-14494.690293.220294.4903294.7351-14494.690293.220294.503294.793494.690293.220294.503294.793494.690293.230294.503294.793494.690293.230294.503294.793494.690293.230294.503294.795494.690293.230294.503294.795494.690293.230294.503294.795494.690293.230294.503294.795494.690293.230294.503294.795494.797293.230294.503294.795494.797293.230294.503294.795494.797293.230294.503494.795494.797293.230294.503494.795494.797293.230294.503494.797494.690293.230294.503493.603494.777293.230294.503493.603494.777293.230294.503493.603494.775293.230294.503493.603494.778293.230 <td< td=""><td></td><td></td><td></td><td></td></td<>				
293.130204.445204.786404.5405293.1305204.405204.786404.5405293.140204.405204.785404.505293.105204.405204.702404.505293.105204.406204.702404.505293.105204.406204.702404.505293.105204.406204.702404.506293.205294.406204.735404.606293.206294.503204.735404.606293.207294.503294.795404.606293.208294.503294.795404.607293.208294.505294.795404.607293.206294.505294.795404.607293.207294.505294.795404.607293.208294.505294.795404.607293.206294.505294.795404.607293.207294.505294.795404.771293.206294.505294.796404.772293.206294.505404.772204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705<	293.000.302	294.440	294.7865	494.530
293.130204.445204.786404.5405293.1305204.405204.786404.5405293.140204.405204.785404.505293.105204.405204.702404.505293.105204.406204.702404.505293.105204.406204.702404.505293.105204.406204.702404.506293.205294.406204.735404.606293.206294.503204.735404.606293.207294.503294.795404.606293.208294.503294.795404.607293.208294.505294.795404.607293.206294.505294.795404.607293.207294.505294.795404.607293.208294.505294.795404.607293.206294.505294.795404.607293.207294.505294.795404.771293.206294.505294.796404.772293.206294.505404.772204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705293.206294.505404.775204.705<	293 000 352	294 4405	294 786SHA	494 5305
293.105294.405294.785494.505293.104294.405294.7854494.505293.105294.4054294.7023494.505293.105294.4054294.7023494.506293.105294.4054294.7023494.506293.105294.4054294.7025494.506293.205294.4054294.7025494.507293.205294.4054294.7024494.506293.205294.4054294.7024494.506293.206294.503294.7024494.506293.207294.503294.7024494.506293.208294.503294.7024494.506293.206294.504294.7054494.607293.207294.504294.7054494.607293.208294.504294.705494.707293.209294.504294.705494.707293.200294.505294.706494.776293.201294.505494.705494.776293.202294.505494.705494.776293.203294.505494.705494.776293.204294.505494.706494.776293.205294.505494.705494.776293.206294.505494.705494.776293.305294.505494.705494.776293.305294.505494.705494.776293.305294.505494.705494.776293.305294.505494.705494.776293.305294.505494.705				
293.140294.450294.7854A494.550293.150294.45054A294.7325494.550293.150294.4605294.73254A444.560293.150294.460294.7331A444.507293.200294.820294.7331A444.507293.201294.202294.7331A494.605293.202294.202294.7345494.605293.203294.52054A294.7345494.605293.205294.52054A294.7345494.605293.205294.53054294.7354494.605293.205294.53054294.7354494.605293.205294.53054294.7354494.605293.205294.53054294.7354494.707293.205294.55054294.7354494.707293.205294.55054294.73654A494.775293.205294.55054294.73654494.775293.205294.55054493.1305494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.105494.775293.205294.55054493.400494.775293.205294.55054493.400494.775293.205294.55054493.400494.776 <td></td> <td></td> <td></td> <td></td>				
2931b02944052947254945052931b029440542947254449450529312024460542447354945052932202446054244735449450529323029450742947351444946072932052945314049460749460729320529453140494607494607293205294531404946074946072932052945314294795494607293205294535429479549460729320529453542947954946072932052945354294795494607293205294535429479549460729320529450729479549460729320529450542947954494707293305294505429479544947752933052945054493307494775293305294505449330749477529330529450544934074947752933052945054493407494775293305294505449340749477529330529450544934074947752933052945054493407494775293305294505449340749477529330529450544934074947752933052945054493407494775293305294705449340749478529340529470544934074947852934052947054493407494785 <td>293.130S</td> <td>294.4455</td> <td>294.7885</td> <td>494.540S</td>	293.130S	294.4455	294.7885	494.540S
2931b02944052947254945052931b029440542947254449450529312024460542447354945052932202446054244735449450529323029450742947351444946072932052945314049460749460729320529453140494607494607293205294531404946074946072932052945314294795494607293205294535429479549460729320529453542947954946072932052945354294795494607293205294535429479549460729320529450729479549460729320529450542947954494707293305294505429479544947752933052945054493307494775293305294505449330749477529330529450544934074947752933052945054493407494775293305294505449340749477529330529450544934074947752933052945054493407494775293305294505449340749477529330529450544934074947752933052945054493407494775293305294705449340749478529340529470544934074947852934052947054493407494785 <td>293 1/10</td> <td>294.450</td> <td>29/L 7885HA</td> <td>494 550</td>	293 1/10	294.450	29/L 7885HA	494 550
293150294,405(14)294,795(4)494,5002931505294,405(14)294,795(4)494,507293,205294,405(14)294,795(4)494,507293,205294,202294,795(4)494,605293,205294,502294,795(4)494,605293,205294,502294,795(4)494,605293,206294,503294,795(4)494,605293,207294,503294,795(4)494,605293,206294,503294,795(4)494,605293,207294,503294,795(4)494,605293,207294,503294,795(4)494,605293,208294,505(4)294,795(4)494,705293,207294,505(4)294,795(4)494,707293,208294,505(4)294,795(4)494,777293,209294,505(4)493,305494,777293,200294,505(4)493,400494,775293,300294,505(4)493,400494,775293,400294,605493,400494,775293,400294,605493,400494,775293,400294,607493,400494,775293,400294,607493,400494,775293,400294,607493,400494,775293,400294,607493,400494,775293,400294,607493,400494,775293,400294,607493,400494,775293,400294,607493,400494,785293,400294,607493,400494,785<				
233.105294.407294.7351A494.505233.20294.4054A294.7351A494.5705233.205294.507294.7351A444.607233.205294.507294.7351A444.607233.205294.507294.7351A444.607233.205294.507294.7351A444.607233.205294.507294.7351A444.607233.205294.507294.7355A494.607233.205294.507294.7355A494.607233.205294.503294.7355A494.607233.205294.503294.7355A494.607233.205294.505294.7955HA494.607233.205294.505294.7955HA494.607233.205294.505HA294.7955HA494.607233.205294.505HA294.796494.775233.205294.505HA293.305494.775233.305294.505HA493.300494.775233.305294.505HA493.400494.775233.305294.505HA493.400494.775233.405294.607493.400494.775233.405294.607493.400494.775233.405294.607493.400494.775233.405294.607493.400494.775233.405294.607493.400494.775233.405294.607493.400494.775233.405294.607493.405494.775233.405294.607493.405494.775233.405 <t< td=""><td>293.1405</td><td>294.4505</td><td></td><td>494.5505</td></t<>	293.1405	294.4505		494.5505
233.220244.405244.73344.570233.230244.405244.7354444.570233.230244.504244.7354444.650233.230244.5054244.7354444.600233.240244.5354244.7354444.600233.240244.5354244.7354444.600233.240244.5354244.7354444.600233.240244.505244.7354444.600233.240244.505244.7354444.600233.240244.505244.7354444.600233.270244.505244.7365444.705233.270244.5054244.7365444.775233.280244.5054244.7365444.775233.280244.5054244.73654444.775233.280244.5054433.505444.775233.280244.5054433.40044.775233.280244.5054433.40044.775233.280244.5054433.40044.775233.400244.605433.40244.775233.40024.605434.40244.775233.40124.605434.40244.775233.40224.605434.40244.785233.40324.605434.40244.785233.40324.605434.40244.785233.40524.605434.40244.785233.40524.605434.40244.785233.40524.605434.40244.785233.40524.605434.40544.785 </td <td>293.150</td> <td>294.450SHA</td> <td>294.7925</td> <td>494.560</td>	293.150	294.450SHA	294.7925	494.560
233.220244.405244.73344.570233.230244.405244.7354444.570233.230244.504244.7354444.650233.230244.5054244.7354444.600233.240244.5354244.7354444.600233.240244.5354244.7354444.600233.240244.5354244.7354444.600233.240244.505244.7354444.600233.240244.505244.7354444.600233.240244.505244.7354444.600233.270244.505244.7365444.705233.270244.5054244.7365444.775233.280244.5054244.7365444.775233.280244.5054244.73654444.775233.280244.5054433.505444.775233.280244.5054433.40044.775233.280244.5054433.40044.775233.280244.5054433.40044.775233.400244.605433.40244.775233.40024.605434.40244.775233.40124.605434.40244.775233.40224.605434.40244.785233.40324.605434.40244.785233.40324.605434.40244.785233.40524.605434.40244.785233.40524.605434.40244.785233.40524.605434.40244.785233.40524.605434.40544.785 </td <td>293 1505</td> <td>294.460</td> <td>29/ 7925HA</td> <td>191 5605</td>	293 1505	294.460	29/ 7925HA	191 5605
293.205294.400HA294.795494.570293.205294.505294.795HA494.650293.205294.505294.794494.650293.205294.505294.795HA494.660293.205294.505294.795HA494.670293.205294.505294.795HA494.670293.205294.505294.795HA494.670293.205294.505294.795HA494.600293.205294.505294.795HA494.600293.205294.505294.795HA494.600293.205294.505294.795HA494.771293.205294.505294.795HA494.771293.205294.505493.505494.772293.205294.505493.505494.772293.205294.505493.505494.775293.205294.505493.505494.775293.305294.507493.405494.775293.305294.507493.405494.775293.305294.507493.405494.775293.305294.507493.405494.775293.305294.507493.405494.775293.305294.607493.405494.775293.406294.607493.405494.775293.407294.608493.405494.775293.405294.607493.405494.785293.405294.607493.405494.785293.405294.705494.605494.785293.405294.705494.6				
293.230294.702294.705494.650293.230294.505294.794494.650293.240294.505294.7945494.660293.2405294.505294.7951494.670293.2505294.505294.7955494.670293.2605294.505294.7955494.680293.2005294.505294.7955494.680293.2005294.505294.7955494.680293.2005294.505294.7955494.763293.2005294.505294.7955494.763293.2005294.505294.7955494.763293.2005294.505294.7955494.775293.2005294.505494.795494.775293.2005294.505493.305494.775293.2005294.505493.205494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.785293.400294.605493.405494.785293.400294.707493.405494.785293.400294.707 <td< td=""><td>293.220</td><td>294.4605</td><td>294.793</td><td>494.570</td></td<>	293.220	294.4605	294.793	494.570
293.230294.702294.705494.650293.230294.505294.794494.650293.240294.505294.7945494.660293.2405294.505294.7951494.670293.2505294.505294.7955494.670293.2605294.505294.7955494.680293.2005294.505294.7955494.680293.2005294.505294.7955494.680293.2005294.505294.7955494.763293.2005294.505294.7955494.763293.2005294.505294.7955494.763293.2005294.505294.7955494.775293.2005294.505494.795494.775293.2005294.505493.305494.775293.2005294.505493.205494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.505493.400494.775293.2005294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.775293.400294.605493.400494.785293.400294.605493.405494.785293.400294.707493.405494.785293.400294.707 <td< td=""><td>293.2205</td><td>294.460SHA</td><td>294.7935</td><td>494.570S</td></td<>	293.2205	294.460SHA	294.7935	494.570S
293 205294 205294 705294 704494 6505293 205294 505294 70451A494 6605293 205294 505294 705494 6705293 205294 505294 7055494 6705293 205294 505294 7055494 6805293 205294 505294 7055494 8005293 205294 505294 7055494 705293 206294 505294 7051494 705293 207294 5051294 7051494 707293 208294 5051294 7051494 777293 208294 5051294 70851494 777293 208294 5051294 70851494 777293 208294 5051294 70851494 777293 208294 5051493 5051494 777293 208294 5051493 5051494 777293 208294 5051493 4051494 777293 208294 5071493 5061494 777293 208294 6075493 4051494 778293 4005294 6075493 4051494 778293 4005294 6075493 4051494 778293 4005294 6075493 4051494 778293 4005294 6075493 4051494 778293 4005294 6075493 4051494 778293 4005294 6051493 4051494 778293 4005294 6051493 4051494 785293 4005294 6051493 4051494 785293 4005294 6051493 4051494				
293 2400294 25034A294 2604294 7945494 660293 2505294 505294 795494 670293 2505294 505294 795494 670293 2605294 505294 795494 680293 2605294 505294 795494 680293 2705294 505294 795494 708293 2705294 505294 7965494 708293 2705294 505294 7965494 701293 2705294 505294 798494 771293 2805294 505294 798494 771293 2805294 505494 793494 771293 2805294 505494 705494 775293 2805294 505493 505494 775293 3805294 505493 400494 775293 3805294 505493 400494 775293 3805294 505493 400494 775293 4005294 605493 400494 775293 4005294 605493 400494 775293 4005294 605493 405494 775293 4005294 605493 405494 785293 4005294 605493 405494 785293 4005294 605493 405494 785293 4005294 7051A493 405494 785 <td< td=""><td></td><td></td><td></td><td></td></td<>				
293.2405294.500294.795494.670293.2505294.5005294.7955494.670293.2605294.5005294.7955494.680293.2705294.5005294.7955494.680293.2705294.5005294.7965494.796293.2705294.5005294.7985494.771293.2805294.5005294.7985494.772293.2805294.5005294.7985494.772293.2805294.5005493.300494.772293.2805294.5005493.300494.775293.3806294.5005493.300494.775293.3806294.5005493.300494.775293.3806294.5005493.300494.775293.3807294.5005493.400494.775293.3806294.5005493.400494.775293.3807294.5005493.400494.775293.4005294.5005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.7055494.705494.705293.4005294.7055494.705494.705293.4005294.7055494.705494.705 <td< td=""><td>293.2305</td><td>294.5205</td><td>294.794</td><td>494.6505</td></td<>	293.2305	294.5205	294.794	494.6505
293.2405294.500294.795494.670293.2505294.5005294.7955494.670293.2605294.5005294.7955494.680293.2705294.5005294.7955494.680293.2705294.5005294.7965494.796293.2705294.5005294.7985494.771293.2805294.5005294.7985494.772293.2805294.5005294.7985494.772293.2805294.5005493.300494.772293.2805294.5005493.300494.775293.3806294.5005493.300494.775293.3806294.5005493.300494.775293.3806294.5005493.300494.775293.3807294.5005493.400494.775293.3806294.5005493.400494.775293.3807294.5005493.400494.775293.4005294.5005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.775293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.6005493.400494.782293.4005294.7055494.705494.705293.4005294.7055494.705494.705293.4005294.7055494.705494.705 <td< td=""><td>293,240</td><td>294.520SHA</td><td>294.7945</td><td>494,660</td></td<>	293,240	294.520SHA	294.7945	494,660
293.205294.503294.705494.60293.205294.503294.705494.600293.205294.503294.705494.600293.205294.503294.705494.600293.205294.503294.705494.600293.205294.503294.705494.705293.205294.503294.705494.705293.205294.503294.705494.705293.205294.503294.705494.705293.205294.503294.705494.705293.305294.503493.300494.775293.305294.503493.800494.775293.305294.503493.400494.775293.305294.503493.400494.775293.400294.605493.402494.775293.401294.605493.402494.775293.402294.605493.402494.775293.403294.605493.402494.785293.404294.605493.402494.785293.405294.605493.405494.785293.405294.605493.405494.785293.405294.605493.405494.785293.405294.605493.405494.785293.405294.605493.405494.785293.405294.605493.405494.785293.406294.605493.405494.785293.406294.605493.405494.785293.407294.605493.405494.785				
293 2005 294 5005 294 5405 294 79551A 494 680 293 2005 294 5405 294 79551A 494 680 293 2005 294 54051A 294 79651A 494 680 293 2070 294 5505 294 79651A 494 7075 293 2070 294 5505 294 79851A 494 775 293 2070 294 5505 294 79851A 494 772 293 2070 294 55051A 293 3505 494 772 293 2070 294 55051A 493 3505 494 772 293 3070 294 55051A 493 3505 494 775 293 3205 294 55051A 493 400 494 775 293 3205 294 57051A 493 400 494 776 293 3405 294 57051A 493 400 494 777 293 3405 294 6705 493 400 494 777 293 4005 294 6705 493 400 494 778 293 4005 294 6705 493 400 494 778 293 4005 294 6705 493 400 494 778 293 4005 <td< td=""><td></td><td></td><td></td><td></td></td<>				
293.200294.500294.403294.7954M494.600293.207294.5035MA294.79651M494.600293.207294.5035MA294.79651M494.705293.208294.5051MA294.79851M494.7715293.209294.5051MA294.79851M494.772293.209294.5051MA493.505494.772293.209294.5051MA493.505494.772293.209294.5051MA493.505494.772293.305294.5051M493.505494.775293.305294.5051M493.601494.775293.305294.5051M493.400494.775293.305294.5051M493.400494.775293.400294.605493.401494.775293.401294.605493.402494.775293.402294.605493.402494.775293.403294.605493.402494.775293.404294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605494.402494.775293.405294.605494.605494.775293.405294.605494.605494.775293.406294.605494.605494.775 <td< td=""><td>293.250</td><td>294.5305</td><td>294./95</td><td>494.670</td></td<>	293.250	294.5305	294./95	494.670
293.200294.500294.403294.7954M494.600293.207294.5035MA294.79651M494.600293.207294.5035MA294.79651M494.705293.208294.5051MA294.79851M494.7715293.209294.5051MA294.79851M494.772293.209294.5051MA493.505494.772293.209294.5051MA493.505494.772293.209294.5051MA493.505494.772293.305294.5051M493.505494.775293.305294.5051M493.601494.775293.305294.5051M493.400494.775293.305294.5051M493.400494.775293.400294.605493.401494.775293.401294.605493.402494.775293.402294.605493.402494.775293.403294.605493.402494.775293.404294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605493.402494.775293.405294.605494.402494.775293.405294.605494.605494.775293.405294.605494.605494.775293.406294.605494.605494.775 <td< td=""><td>293,2505</td><td>294.530SHA</td><td>294.7955</td><td>494,6705</td></td<>	293,2505	294.530SHA	294.7955	494,6705
293.200294.50G294.79G494.79G293.27O294.50G294.79G494.79G293.28D294.50G294.79S494.77T293.28D294.50G294.79S494.77T293.29D294.50G294.79S494.77T293.29D294.50G294.79S494.77T293.29D294.50G493.30G494.77T293.35D294.50G493.30G494.77T293.35D294.50G493.30G494.77T293.35D294.57G493.30G494.77T293.36D294.57G493.40G494.77T293.34D294.57G493.40G494.77T293.34D294.65G493.40G494.77T293.40D294.60G493.40G494.77T293.40D294.60G493.40G494.77S293.40D294.60G493.40G494.77S293.40D294.60G493.40G494.77S293.40D294.60G493.40G494.77S293.40D294.60G493.40G494.77S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.60G493.40G494.78S293.40D294.70G493.40G494.78S <td></td> <td></td> <td></td> <td></td>				
293.270294.505294.7965494.706293.200294.550294.7965494.701293.200294.550294.7985494.771293.200294.550294.7985494.771293.200294.550294.7985494.772293.200294.550493.350494.772293.300294.560493.350494.775293.350294.570493.360494.775293.360294.570493.360494.775293.360294.570493.400494.775293.400294.650493.400494.778293.400294.650493.400494.778293.400294.660493.405494.778293.401294.660493.405494.778293.402294.603493.405494.778293.405294.603493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.605493.405494.778293.405294.705493.405494.785293.405294.705493.405494.785293.405294.705493.405494.78				
293 2005 294 550 294 7965 494 771 293 2805 294 5505 294 7985 494 771 293 2805 294 5505 294 7985 494 771 293 2805 294 560 294 7985 494 772 293 2805 294 560 493 3505 494 772 293 3505 294 5705 493 3505 494 7775 293 3505 294 5705 493 3400 494 7775 293 360 294 5705 493 3400 494 7775 293 4005 294 6505 493 4005 494 7775 293 4005 294 6505 493 4005 494 778 293 4005 294 6605 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4050 494 778 293 4020 294 6705 493 4050 494 778 293 4020 294 6705 493 4705	293.260S	294.540S	294.796	494.6805
293 2005 294 550 294 7965 494 771 293 2805 294 5505 294 7985 494 771 293 2805 294 5505 294 7985 494 771 293 2805 294 560 294 7985 494 772 293 2805 294 560 493 3505 494 772 293 3505 294 5705 493 3505 494 7775 293 3505 294 5705 493 3400 494 7775 293 360 294 5705 493 3400 494 7775 293 4005 294 6505 493 4005 494 7775 293 4005 294 6505 493 4005 494 778 293 4005 294 6605 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4020 494 778 293 4020 294 6705 493 4050 494 778 293 4020 294 6705 493 4050 494 778 293 4020 294 6705 493 4705	293 270	294 540SHA	294 7965	494 769
293.280294.505294.798494.771293.280294.505294.7985HA494.772293.290294.505294.7985HA494.772293.350294.505493.350494.772293.350294.505493.350494.775293.350294.5705493.360494.775293.360294.5705493.400494.776293.360294.5705HA493.400494.776293.400294.650493.400494.776293.401294.650493.400494.778293.402294.650493.400494.778293.403294.670493.402494.778293.404294.670493.402494.782293.405294.670493.405494.782293.405294.670493.405494.782293.405294.600493.405494.782293.405294.601493.405494.782293.405294.705HA493.405494.782293.405294.705HA493.405494.782293.405294.705HA493.405494.782293.405294.705HA493.405494.782293.405294.705HA493.405494.782293.405294.705HA493.405494.785293.405294.705HA493.405494.785293.405294.775493.405494.785293.405294.775493.405494.785293.405294.775493.405494.785293.505294.77549				
293 2805294 505294 7985494 775293 2905294 5605493 350494 775293 3905294 505493 380494 775293 3505294 570493 360494 775293 3605294 570493 400494 775293 3605294 560493 400494 775293 4000294 650493 400494 775293 4001294 650493 400494 775293 4002294 650493 400494 775293 4005294 660493 400494 778293 4005294 660493 400494 778293 4005294 670493 4203494 778293 4005294 670493 4405494 778293 4005294 670493 4405494 778293 4005294 6705493 4405494 782293 4005294 6054493 405494 782293 4005294 6054493 405494 783293 4005294 6054493 405494 783293 4005294 7054A493 405494 785293 4005294 7715493 4005494 785293 4005294 7715493 4005494 785293 5005294 771493 5005494 786293 5005294 777493 5005494 798293 50				
293 290294 500294 702293 290294 5605493 35094 775293 350294 56051493 350594 775293 350294 5705493 360594 775293 360294 57051493 3605494 775293 360294 57051493 400494 777293 4005294 6505493 401494 777293 4005294 6605493 4105494 777293 4005294 6605493 420494 778293 4005294 6605493 420494 779293 4205294 6705493 440494 779293 4205294 6705493 440494 782293 4205294 6705493 440494 782293 4205294 6705493 440494 782293 4205294 6705493 4405494 782293 4205294 6705493 4405494 782293 4205294 6705493 4405494 782293 4205294 7051A493 400494 785293 5005294 775493 5005494 785293 5005294 7775493 5005494 785293 5005294 7775493 5005494 785293 5005294 7775493 5005494 793293 5005294 7775493 5005494 795293 5005 <td>293.280</td> <td>294.550S</td> <td>294.798</td> <td>494.771</td>	293.280	294.550S	294.798	494.771
293 290294 500294 702293 290294 5605493 35094 775293 350294 56051493 350594 775293 350294 5705493 360594 775293 360294 57051493 3605494 775293 360294 57051493 400494 777293 4005294 6505493 401494 777293 4005294 6605493 4105494 777293 4005294 6605493 420494 778293 4005294 6605493 420494 779293 4205294 6705493 440494 779293 4205294 6705493 440494 782293 4205294 6705493 440494 782293 4205294 6705493 440494 782293 4205294 6705493 4405494 782293 4205294 6705493 4405494 782293 4205294 6705493 4405494 782293 4205294 7051A493 400494 785293 5005294 775493 5005494 785293 5005294 7775493 5005494 785293 5005294 7775493 5005494 785293 5005294 7775493 5005494 793293 5005294 7775493 5005494 795293 5005 <td>293 2805</td> <td>294 550SHA</td> <td>29/1 7985</td> <td>/9/ 7715</td>	293 2805	294 550SHA	29/1 7985	/9/ 7715
293 2905294 5005494 505494 7725293 350294 5705493 3605494 775293 3605294 5705493 3605494 776293 3605294 5705493 400494 776293 4005294 5005493 400494 777293 4005294 650493 400494 777293 4005294 660493 400494 777293 4005294 660493 402494 778293 4005294 660493 420494 778293 4005294 6705493 4205494 778293 4005294 6705493 4205494 778293 4005294 6705493 4205494 782293 4005294 6805493 4205494 782293 4005294 6805493 4505494 782293 4005294 6805493 4505494 783293 4005294 7055493 4605494 783293 4005294 7055493 470494 784293 4005294 7055494 784293 4005294 7605494 784293 4005294 7605494 784293 4005294 7605494 784293 4005294 776493 400293 4005294 7765493 470293 4005294 7765494 785293 4005294 7765494 786293 4005294 7765494 786293 5005294 7765493 490293 5005294 7775493 500293 5005294 7775493 500293 5005294 7785494 786 </td <td></td> <td></td> <td></td> <td></td>				
293 350294 503/HA492 3505494 775293 350294 5705493 3605494 775293 360294 5705493 4005494 776293 360294 550493 4005494 777293 4005294 650493 4005494 777293 4005294 650493 4005494 777293 410294 660493 4105494 777293 4105294 670493 402494 778293 4205294 670493 4405494 778293 4205294 6705493 4405494 778293 4205294 6705493 4405494 782293 4205294 680493 4505494 782293 4205294 680493 4505494 783293 4205294 680493 4505494 783293 4705294 4605493 470494 784293 4705294 4705HA493 470494 784293 4705294 705HA493 470494 784293 5005294 7705HA493 4805494 785293 5105294 7715493 4805494 785293 5105294 7775493 5005494 786293 5205294 7775493 5005494 786293 5505294 7775493 5005494 786293 5505294 7775493 5005494 786293 5505294 7775493 505494 796293 5505294 7775493 505494 796293 5505294 7775493 505494 796293 5505294 7775493 505494 796<	293.290	294.560	294.7985HA	494.//2
293 3505294 570493 360494 7755293 3605294 5705493 4706493 400494 776293 3605294 650493 400494 777293 4005294 650493 400494 777293 4105294 660493 410494 7778293 4105294 660493 420494 778293 4205294 670493 420494 778293 4205294 6705493 420494 778293 4205294 6705493 440494 778293 4205294 6705493 4405494 782293 4205294 6805493 4505494 782293 4205294 6805493 4505494 783293 4205294 6805493 4505494 783293 4205294 6805493 4505494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 785293 4205294 7765493 4505494 786293 5105294 7765493 4505494 786293 5105294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500 <t< td=""><td>293.2905</td><td>294.560S</td><td>493.350</td><td>494.7725</td></t<>	293.2905	294.560S	493.350	494.7725
293 3505294 570493 360494 7755293 3605294 5705493 4706493 400494 776293 3605294 650493 400494 777293 4005294 650493 400494 777293 4105294 660493 410494 7778293 4105294 660493 420494 778293 4205294 670493 420494 778293 4205294 6705493 420494 778293 4205294 6705493 440494 778293 4205294 6705493 4405494 782293 4205294 6805493 4505494 782293 4205294 6805493 4505494 783293 4205294 6805493 4505494 783293 4205294 6805493 4505494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 784293 4205294 7305HA493 4605494 785293 4205294 7765493 4505494 786293 5105294 7765493 4505494 786293 5105294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500494 786293 5205294 7775493 500 <t< td=""><td>293 350</td><td>29/ 560540</td><td>193 3505</td><td>191 775</td></t<>	293 350	29/ 560540	193 3505	191 775
293 360294 570S493 360S494 776293 360S294 570SHA493 400S494 777293 400S294 650S493 400S494 777293 400S294 650S493 410S494 778293 410S294 660S493 410S494 778293 410S294 660S493 420S494 778S293 420S294 670S493 420S494 778S293 420S294 670S493 440S494 782293 420S294 670SHA493 440S494 782293 460S294 680S493 450S494 783293 460S294 680SHA493 450S494 783293 470S294 680SHA493 450S494 783293 470S294 70SHA493 470S494 784293 470S294 70SHA493 470S494 785293 50S294 775SHA493 470S494 785293 51D294 775493 470S494 785293 52D294 771S493 490S494 785293 52D294 771S493 500S494 785293 52D294 777S493 50S494 793293 56D294 777S493 50S494 79				
293 3005 294 5705HA 493 400 494 776 293 4005 294 650 493 400 494 777 293 4005 294 650 493 410 494 778 293 4005 294 660 493 410 494 778 293 4105 294 660 493 420 494 778 293 4205 294 670 493 420 494 778 293 4205 294 670 493 440 494 778 293 4205 294 6805 493 4505 494 782 293 4205 294 6805 493 4505 494 782 293 4705 294 6805 493 4505 494 783 293 4705 294 6805HA 493 4705 494 784 293 4805 294 7805HA 493 4705 494 784 293 4805 294 7805HA 493 4705 494 784 293 5005 294 765HA 493 480 494 785 293 5105 294 775 493 505 494 785 293 520 294 771 493 505 494 786 293 520 294 772 493 505 494 78	293.3505	294.570	493.360	494.7755
293.400294.650493.400494.777293.400294.650433.410494.778293.410294.660433.410494.778293.410294.660433.420494.778293.420294.670433.420494.779233.420294.670433.400494.779233.460294.670493.400494.782233.460294.670493.400494.782233.460294.680493.405494.782233.460294.680493.405494.783293.460294.680493.405494.784293.470294.6805493.405494.784293.470294.6805493.405494.784293.470294.6805493.405494.784293.480294.7305HA493.405494.784293.500294.7605HA493.405494.785293.510294.7605HA493.405494.785293.510294.772493.500494.785293.520294.771493.505494.785293.520294.772493.505494.785293.520294.772493.505494.786293.520294.774493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.530294.775493.505494.786293.540294.7765493.505 <t< td=""><td>293.360</td><td>294.570S</td><td>493.3605</td><td>494.776</td></t<>	293.360	294.570S	493.3605	494.776
293.400294.650493.400494.777293.400294.650433.410494.778293.410294.660433.410494.778293.410294.660433.420494.778293.420294.670433.420494.779233.420294.670433.400494.779233.460294.670493.400494.782233.460294.670493.400494.782233.460294.680493.405494.782233.460294.680493.405494.783293.460294.680493.405494.784293.470294.6805493.405494.784293.470294.6805493.405494.784293.470294.6805493.405494.784293.480294.7305HA493.405494.784293.500294.7605HA493.405494.785293.510294.7605HA493.405494.785293.510294.772493.500494.785293.520294.771493.505494.785293.520294.772493.505494.785293.520294.772493.505494.786293.520294.774493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.520294.775493.505494.786293.530294.775493.505494.786293.540294.7765493.505 <t< td=""><td>203 3605</td><td>20/ 570540</td><td>493 400</td><td>191 7765</td></t<>	203 3605	20/ 570540	493 400	191 7765
293.4005294.6505493.410494.778293.410294.6605493.420494.778293.4105294.6605493.420494.778293.420294.6705493.420494.778293.420294.6705493.400494.7795293.460294.6705493.400494.7785293.460294.6705493.405494.782293.460294.6805493.460494.783293.4705294.6805493.4605494.783293.4705294.6805HA493.4605494.783293.4705294.7305HA493.4605494.784293.4805294.7305HA493.4705494.7845293.5005294.7505HA493.4705494.7845293.5005294.7695493.4805494.7855293.5105294.7695493.490494.7855293.5105294.771493.500494.7865293.520294.772493.500494.7865293.520294.772493.500494.7865293.520294.772493.500494.7865293.520294.775493.500494.7865293.520294.775493.500494.798293.520294.775493.500494.798293.520294.775493.500494.798293.520294.775493.500494.798293.520294.775493.500494.798293.520294.775493.500494.798293.520294.775493.500494.798293.520 </td <td></td> <td></td> <td></td> <td></td>				
293.410294.600493.400494.778293.410294.670493.420494.778293.420294.670493.420494.779293.420294.670493.400494.782293.460294.6705493.405494.782293.460294.6805493.405494.782293.470294.6805493.405494.782293.470294.6805493.405494.783293.470294.6805493.405494.783293.470294.7305494.735493.405293.4705294.7305493.406494.783293.500294.7305493.405494.7845293.505294.7605493.405494.785293.505294.7605493.405494.785293.505294.771493.405494.785293.505294.771493.500494.7865293.505294.771493.500494.7865293.505294.7725493.500494.7865293.505294.775493.502494.792293.505294.775493.505494.792293.505294.775493.505494.792293.506294.7765493.505494.793293.507294.7765493.505494.793293.508294.775493.505494.793293.506294.775493.505494.793293.507294.775493.505494.793293.508294.775493.505494.793293.509294.7765493.505<	293.400	294.650	493.4005	494.///
293.410294.600493.400494.778293.410294.670493.420494.778293.420294.670493.420494.779293.420294.670493.400494.782293.460294.6705493.405494.782293.460294.6805493.405494.782293.470294.6805493.405494.782293.470294.6805493.405494.783293.470294.6805493.405494.783293.470294.7305494.735493.405293.4705294.7305493.406494.783293.500294.7305493.405494.7845293.505294.7605493.405494.785293.505294.7605493.405494.785293.505294.771493.405494.785293.505294.771493.500494.7865293.505294.771493.500494.7865293.505294.7725493.500494.7865293.505294.775493.502494.792293.505294.775493.505494.792293.505294.775493.505494.792293.506294.7765493.505494.793293.507294.7765493.505494.793293.508294.775493.505494.793293.506294.775493.505494.793293.507294.775493.505494.793293.508294.775493.505494.793293.509294.7765493.505<	293.4005	294.6505	493.410	494,7775
293.405294.600493.400494.7785293.4205294.6705493.440494.7795293.4205294.6705493.440494.7795293.460294.6705493.440494.782293.460294.680493.450494.782293.470294.6805493.460494.782293.470294.6805A493.460494.783293.470294.6805A493.460494.783293.470294.6805AA493.460494.783293.470294.7305HA493.460494.784293.4805294.7305HA493.460494.785293.500294.7605HA493.480494.785293.510294.769493.400494.785293.510294.772493.400494.785293.520294.771493.400494.786293.520294.772493.500494.786293.520294.772493.500494.786293.520294.772493.500494.786293.520294.772493.500494.786293.520294.772493.500494.786293.520294.775493.500494.786293.520294.775493.500494.786293.520294.775493.500494.786293.540294.775493.500494.786293.540294.775493.500494.792293.580294.775493.500494.792293.580294.775493.580494.795293.580294.7754				
19320 294,670 493,400 494,779 293,460 294,6705HA 493,440 494,782 293,460 294,6705HA 493,405 494,782 293,460 294,680 493,450 494,782 293,470 294,6805HA 493,4605 494,783 293,470 294,6805HA 493,4605 494,783 293,4705 294,705HA 493,470 494,784 293,4805 294,705HA 493,470 494,784 293,500 294,705HA 493,470 494,784 293,500 294,7605HA 493,480 494,785 293,500 294,7605HA 493,480 494,785 293,510 294,7605HA 493,480 494,785 293,510 294,770 493,480 494,785 293,510 294,772 493,400 494,785 293,510 294,772 493,500 494,786 293,530 294,772 493,500 494,786 293,540 294,775 493,500 494,792				
293 420S 294 670S 493 440S 494.779S 293 460 294.670SHA 493.40C 494.782 293 460S 294.680 493.450 494.782 293 470 294.680S 493.450 494.782 293 470S 294.680SHA 493.460S 494.783 293 470S 294.70SHA 493.460S 494.784 293 480S 294.730SHA 493.470S 494.784S 293 500 294.750SHA 493.470S 494.784S 293 500S 294.760SHA 493.480S 494.785 293 510S 294.769SHA 493.490S 494.785SHA 293 510S 294.771S 493.500 494.785SHA 293 520S 294.771S 493.500 494.785 293 530S 294.772S 493.500 494.785 293 540S 294.772 493.500 494.785 293 540S 294.772 493.500 494.785 293 540S 294.775 493.500 494.792 293 540S 294.775 493.500	293.410S	294.660S	493.420	494.778S
293 420S 294 670S 493 440S 494.779S 293 460 294.670SHA 493.40C 494.782 293 460S 294.680 493.450 494.782 293 470 294.680S 493.450 494.782 293 470S 294.680SHA 493.460S 494.783 293 470S 294.70SHA 493.460S 494.784 293 480S 294.730SHA 493.470S 494.784S 293 500 294.750SHA 493.470S 494.784S 293 500S 294.760SHA 493.480S 494.785 293 510S 294.769SHA 493.490S 494.785SHA 293 510S 294.771S 493.500 494.785SHA 293 520S 294.771S 493.500 494.785 293 530S 294.772S 493.500 494.785 293 540S 294.772 493.500 494.785 293 540S 294.772 493.500 494.785 293 540S 294.775 493.500 494.792 293 540S 294.775 493.500	293 420	294 670	493 4205	494 779
293.460 294.670SHA 493.450 494.782 293.460S 294.680S 493.450S 494.782S 293.470S 294.680S 493.450S 494.783 293.470S 294.680SHA 493.460S 494.783 293.470S 294.730SHA 493.460S 494.783 293.480S 294.70SHA 493.470 494.784 293.500 294.70SHA 493.470 494.784 293.500 294.70SHA 493.470 494.785 293.500 294.70SHA 493.480 494.785 293.500 294.769 493.490 494.785 293.510 294.769 493.490 494.785 293.520 294.771 493.500 494.786 293.520 294.772 493.500 494.786 293.530 294.772 493.500 494.786 293.540 294.774 493.500 494.786 293.540 294.774 493.500 494.794 293.540 294.776 493.500 494.793				
293.460S 294.680 493.450 494.782S 293.470 294.680SHA 493.450S 494.783 293.470S 294.680SHA 493.460 494.783 293.480 294.730SHA 493.40S 494.784S 293.480 294.730SHA 493.470S 494.784S 293.500 294.760SHA 493.470S 494.784S 293.500 294.760SHA 493.480S 494.784S 293.500 294.760SHA 493.480S 494.784S 293.500 294.769 493.480S 494.785S 293.510 294.769 493.490S 494.785S 293.520 294.771 493.500S 494.786S 293.530 294.772 493.500S 494.786S 293.540S 294.772 493.500S 494.786S 293.540S 294.772S 493.500S 494.786S 293.540S 294.775 493.500S 494.792S 293.540S 294.776S 493.50S 494.792S 293.540S 294.775S 493.50S				
293.470 294.680S 493.450S 494.783 293.470S 294.680SHA 493.460 494.784 293.480S 294.730SHA 493.470 494.784 293.480S 294.730SHA 493.470 494.784 293.500 294.760SHA 493.470 494.784SHA 293.500 294.760SHA 493.480S 494.785 293.510 294.760SHA 493.480S 494.785 293.510 294.760SHA 493.480S 494.785 293.510 294.769S 493.490S 494.785 293.520S 294.711 493.490S 494.786 293.520S 294.772 493.500 494.786 293.530S 294.772 493.510S 494.788 293.540 294.772 493.500 494.788 293.540 294.775 493.500 494.792 293.580S 294.776 493.500 494.792 293.580S 294.776 493.500 494.793 293.590S 294.776 493.500 49	293.460	294.670SHA	493.4405	494.782
293.470 294.680S 493.450S 494.783 293.470S 294.680SHA 493.460 494.784 293.480S 294.730SHA 493.470 494.784 293.480S 294.730SHA 493.470 494.784 293.500 294.760SHA 493.470 494.784SHA 293.500 294.760SHA 493.480S 494.785 293.510 294.760SHA 493.480S 494.785 293.510 294.760SHA 493.480S 494.785 293.510 294.769S 493.490S 494.785 293.520S 294.711 493.490S 494.786 293.520S 294.772 493.500 494.786 293.530S 294.772 493.510S 494.788 293.540 294.772 493.500 494.788 293.540 294.775 493.500 494.792 293.580S 294.776 493.500 494.792 293.580S 294.776 493.500 494.793 293.590S 294.776 493.500 49	293 4605	294 680	493 450	494 7825
293.470S 294.680SHA 493.460 494.783S 293.480 294.730SHA 493.400 494.784 293.480 294.730SHA 493.400 494.784 293.500 294.760SHA 493.470S 494.784SHA 293.500 294.760SHA 493.480 494.785 293.510 294.769 493.480 494.785SHA 293.510 294.769 493.490S 494.785SHA 293.520 294.711 493.500S 494.785SHA 293.520 294.772 493.500S 494.786SHA 293.530 294.772 493.500S 494.786SHA 293.530 294.772 493.500S 494.786SHA 293.540 294.774 493.500S 494.786SHA 293.540 294.775 493.500S 494.792 293.540 294.775 493.500S 494.792 293.540 294.776SHA 493.500 494.793 293.540 294.776SHA 493.500 494.793 293.540 294.776SHA 493.500 <td></td> <td></td> <td></td> <td></td>				
293.480 294.730SHA 493.460S 494.784 293.400S 294.700SHA 493.470S 494.784SHA 293.500 294.700SHA 493.470S 494.784SHA 293.500 294.700SHA 493.480S 494.785SHA 293.501 294.700SHA 493.480S 494.785SHA 293.510 294.769S 493.490S 494.785SHA 293.520 294.711 493.490S 494.786SHA 293.520S 294.772 493.500S 494.786SHA 293.530S 294.772 493.500S 494.786SHA 293.540 294.772 493.500S 494.786SHA 293.540 294.772 493.500 494.786SHA 293.540 294.774S 493.500 494.786SHA 293.540 294.774S 493.500 494.792 293.580 294.775 493.500 494.792 293.580 294.776S 493.500 494.793 293.590S 294.776S 493.500 494.795 293.600 294.777 49	293.470	294.6805	493.4505	494.783
293.4805 294.7405HA 493.470 494.7845 293.500 294.7505HA 493.470 494.785 293.501 294.7605HA 493.480 494.785 293.510 294.769 493.480 494.7855 293.510 294.769 493.490 494.7855 293.520 294.771 493.490 494.786 293.520 294.771 493.500 494.7865 293.520 294.772 493.500 494.7865 293.530 294.772 493.500 494.7865 293.540 294.772 493.500 494.786 293.540 294.774 493.500 494.786 293.540 294.775 493.520 494.782 293.580 294.775 493.520 494.792 293.580 294.775 493.540 494.793 293.590 294.776 493.540 494.794 293.580 294.775 493.540 494.794 293.680 294.775 493.540 494.796 <	293.470S	294.680SHA	493.460	494.7835
293.4805 294.7405HA 493.470 494.7845 293.500 294.7505HA 493.470 494.785 293.501 294.7605HA 493.480 494.785 293.510 294.769 493.480 494.7855 293.510 294.769 493.490 494.7855 293.520 294.771 493.490 494.786 293.520 294.771 493.500 494.7865 293.520 294.772 493.500 494.7865 293.530 294.772 493.500 494.7865 293.540 294.772 493.500 494.786 293.540 294.774 493.500 494.786 293.540 294.775 493.520 494.782 293.580 294.775 493.520 494.792 293.580 294.775 493.540 494.793 293.590 294.776 493.540 494.794 293.580 294.775 493.540 494.794 293.680 294.775 493.540 494.796 <	293 480	294 730SHA	493 4605	494 784
293.500 294.750SHA 493.470S 494.784SHA 293.500S 294.760SHA 493.480 494.785 293.510 294.769 493.480 494.785SHA 293.502 294.769 493.490 494.785SHA 293.520 294.771 493.490 494.786SHA 293.520 294.771 493.500S 494.786SHA 293.530 294.772 493.500S 494.786SHA 293.540 294.772 493.500S 494.788SHA 293.540 294.772 493.500S 494.788 293.540 294.774 493.500S 494.788 293.540 294.775 493.502 494.792S 293.540 294.775 493.502 494.792S 293.580S 294.775 493.502 494.792S 293.580S 294.776S 493.540S 494.794 293.680 294.775 493.580S 494.794S 293.680 294.775HA 493.590S 494.795 293.690S 294.778S 493.590S				
293.5005 294.7605HA 493.480 494.785 293.510 294.769 493.4805 494.7855HA 293.5105 294.7695 493.490 494.7855HA 293.5205 294.771 493.4905 494.786 293.5205 294.7715 493.500 494.7865 293.530 294.772 493.500 494.7865 293.530 294.772 493.510 494.7885 293.540 294.772 493.510 494.7885 293.540 294.775 493.5205 494.788 293.5405 294.775 493.5205 494.792 293.5805 294.775 493.5205 494.792 293.5805 294.7765 493.530 494.793 293.590 294.7765 493.540 494.794 293.680 294.775 493.580 494.794 293.680 294.775 493.580 494.794 293.6905 294.775 493.590 494.794 293.6905 294.7785HA 493.5905 494.7965<				
293.510294.769493.4805494.7855293.5105294.7695493.490494.7855HA293.520294.7715493.500494.7865293.520294.7715493.5005494.7865293.530294.772493.5005494.7865HA293.5305294.7725493.5105494.7885293.5405294.7745493.5205494.7885293.5405294.7745493.5205494.7925293.580294.775493.5205494.7925293.5805294.7755493.5205494.793293.5805294.7765493.5305494.793293.5805294.7765493.5405494.793293.5805294.7765HA493.5405494.794293.680294.775493.5805494.795293.6905294.775493.5805494.795293.6905294.775493.5805494.795293.6905294.7785HA493.7405494.796293.6905294.775493.5805494.796293.790294.7785HA493.7405494.796293.790294.7785HA493.7405494.796293.790294.7785HA493.7405494.798293.790294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7795HA493.8405Products available non-sterile and293.7405	293.500	294.750SHA	493.4705	494.784SHA
293.510294.769493.4805494.7855293.5105294.7695493.490494.7855HA293.520294.7715493.500494.7865293.520294.7715493.5005494.7865293.530294.772493.5005494.7865HA293.5305294.7725493.5105494.7885293.5405294.7745493.5205494.7885293.5405294.7745493.5205494.7925293.580294.775493.5205494.7925293.5805294.7755493.5205494.793293.5805294.7765493.5305494.793293.5805294.7765493.5405494.793293.5805294.7765HA493.5405494.794293.680294.775493.5805494.795293.6905294.775493.5805494.795293.6905294.775493.5805494.795293.6905294.7785HA493.7405494.796293.6905294.775493.5805494.796293.790294.7785HA493.7405494.796293.790294.7785HA493.7405494.796293.790294.7785HA493.7405494.798293.790294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7785HA493.7405494.798293.7405294.7795HA493.8405Products available non-sterile and293.7405	293 5005	294 760SHA	493 480	494 785
293.510S294.769S493.490494.785SHA293.520294.771493.490S494.786293.520S294.772493.500494.786SHA293.530S294.772493.510494.786SHA293.540294.772493.510S494.788293.540294.774493.502494.782293.540294.775493.520S494.792293.580S294.775493.520S494.792293.580S294.776493.530S494.793293.590S294.776493.530S494.793293.580S294.776SHA493.530S494.794293.680S294.775493.540S494.794293.680S294.775SHA493.580S494.795293.690S294.775SHA493.590S494.796293.790294.778SHA493.740494.798293.740294.778SHA493.740494.798293.740294.778SHA493.740S494.798293.740294.778SHA493.840S494.798293.740294.779SHA493.840S494.798293.740294.778SHA493.840S494.798293.740294.779SHA493.840S494.798293.740294.778SHA493.840S494.798293.740294.779SHA493.840S494.798293.740294.779SHA493.840S494.798293.740294.779SHA493.840S494.798293.740S294.779SHA493.840S494.798293.740S294.779SHA493.840S </td <td></td> <td></td> <td></td> <td></td>				
293.520294.771493.490S494.786293.520S294.771S493.500494.786SHA293.530294.772493.500494.786SHA293.530S294.772493.510494.788293.540C294.774493.510S494.788293.540S294.774S493.520494.792293.580S294.775493.530494.793293.590S294.776493.530S494.793293.590S294.776S493.530S494.793293.590S294.776S493.540494.794293.680S294.776SHA493.580S494.795293.680S294.777S493.580S494.795293.690S294.777SHA493.590494.796293.690S294.778SHA493.740494.796293.730S294.778493.740494.798293.740294.778493.740494.798293.740294.778493.840494.798293.740S294.779SHA494.305sterile can be diifferentiated with the 293.740293.740294.779SHA494.300sterile can be diifferentiated with the 293.740293.740294.779SHA494.305sterile can be diifferentiated with the 293.740293.740294.779SHA494.300sterile can be diifferentiated with the 293.740293.740294.779SHA494.300Ssterile can be diifferentiated with the 293.740293.740294.779SHA494.300Ssterile can be diifferentiated with the 293.740293.740294.779SHA<				
293.520S294.771S493.500494.786SHA293.530S294.772493.500S494.786SHA293.530S294.772S493.510S494.788293.540294.774493.510S494.788S293.540S294.774S493.520494.792293.580S294.775S493.520S494.793293.590S294.776S493.530S494.793293.680S294.776S493.540S494.794293.680S294.775S493.540S494.794293.680S294.775S493.580S494.794293.680S294.777S493.580S494.795293.680S294.777S493.580S494.795293.690S294.778SHA493.590S494.796293.730S294.778SHA493.740S494.798293.730S294.778SHA493.840S494.798293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740S294.779SHA494.30Ssterile can be differentiated with the293.740S294.	293.5105	294.7695	493.490	494.7855HA
293.520S294.771S493.500494.786SHA293.530S294.772493.500S494.786SHA293.530S294.772S493.510S494.788293.540294.774493.510S494.788S293.540S294.774S493.520494.792293.580S294.775S493.520S494.793293.590S294.776S493.530S494.793293.680S294.776S493.540S494.794293.680S294.775S493.540S494.794293.680S294.775S493.580S494.794293.680S294.777S493.580S494.795293.680S294.777S493.580S494.795293.690S294.778SHA493.590S494.796293.730S294.778SHA493.740S494.798293.730S294.778SHA493.840S494.798293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740S294.779SHA494.30Ssterile can be differentiated with the293.740S294.	293.520	294.771	493.4905	494.786
293.530294.772493.500494.786SHA293.530S294.772S493.510494.788293.540294.774493.510S494.788S293.540S294.774S493.520494.792293.580294.775493.520S494.792S293.580S294.775493.530S494.793S293.590S294.776S493.530S494.793293.580S294.776S493.540S494.794S293.680S294.775SHA493.580S494.795S293.680S294.777SHA493.580S494.795S293.690S294.778SHA493.590S494.796S293.730S294.778SHA493.740S494.796S293.730S294.778SHA493.740S494.796S293.730S294.778SHA493.740S494.798S293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated with the293.740294.762494.300Ssterile can be differentiated with the <td></td> <td></td> <td></td> <td></td>				
293.5305294.7725493.510494.788293.5405294.774493.5105494.7885293.5405294.7745493.5205494.792293.5805294.7755493.5305494.793293.5905294.7765493.5305494.793293.5905294.7765493.5305494.794293.6806294.7765HA493.5405494.794293.6805294.7775493.5805494.794293.6805294.7775493.5805494.795293.6805294.7775493.5805494.795293.6805294.7775493.5805494.795293.6805294.7775493.5805494.796293.6905294.7785493.5905494.796293.7305294.7785493.7405494.798293.7305294.7785HA493.7405494.798293.7405294.7795493.8405Products available non-sterile and293.7405294.7795HA493.8005Sterile can be differentiated with the293.790294.7925HA494.3005sterile can be differentiated with the293.840294.7925HA494.3005sterile can be differentiated with the				
293.540294.774493.510S494.788S293.540S294.774S493.520494.792293.580S294.775493.520S494.792S293.580S294.775S493.530494.793S293.590S294.776S493.530S494.793S293.640294.776SHA493.540S494.795S293.680S294.777S493.580S494.795S293.680S294.775SHA493.580S494.795S293.690S294.775SHA493.590S494.795S293.690S294.775SHA493.590S494.795S293.690S294.775SHA493.590S494.796S293.730S294.778SHA493.740S494.796S293.730S294.778SHA493.740S494.798S293.740S294.779S493.840SProducts available non-sterile and293.740S294.779SHA494.300Ssterile can be differentiated with the293.790294.775SHA494.300Ssterile can be differentiated muth the293.790294.775SHA494.300Sst				
293.540294.774493.510S494.788S293.540S294.774S493.520494.792293.580S294.775493.520S494.792S293.580S294.775S493.530494.793S293.590S294.776S493.530S494.793S293.640294.776SHA493.540S494.795S293.680S294.777S493.580S494.795S293.680S294.775SHA493.580S494.795S293.690S294.775SHA493.590S494.795S293.690S294.775SHA493.590S494.795S293.690S294.775SHA493.590S494.796S293.730S294.778SHA493.740S494.796S293.730S294.778SHA493.740S494.798S293.740S294.779S493.840SProducts available non-sterile and293.740S294.779SHA494.300Ssterile can be differentiated with the293.790294.775SHA494.300Ssterile can be differentiated muth the293.790294.775SHA494.300Sst	293.5305	294.7725	493.510	494.788
293.5405294.7745493.520494.792293.580294.775493.520S494.792S293.590294.775S493.530S494.793S293.590294.776493.530S494.794S293.590294.776SHA493.540S494.794S293.680294.777493.580S494.795S293.680294.777SHA493.580S494.795S293.690294.775HA493.590S494.796S293.690294.77SHA493.590S494.796S293.730294.778SHA493.740S494.796S293.730294.778SHA493.740S494.798S293.740294.779S493.840SProducts available non-sterile and 493.790293.740294.779SHA494.300Ssterile can be differentiated with the 293.790293.790294.779SHA494.300Ssterile can be differentiated number293.790294.79SHA494.300Ssterile can be differentiated number293.840294.79SHA494.300Ssterile can be differentiated number	293 540	294 774	493 5105	494 7885
293.580294.775493.520S494.792S293.580S294.775S493.530494.793293.590294.776493.530S494.793S293.590S294.776S493.540S494.794293.640294.776SHA493.540S494.794S293.680294.777493.580S494.795S293.680S294.777SHA493.590S494.795S293.690S294.77SHA493.590S494.796S293.690S294.778SHA493.590S494.796S293.730S294.778SHA493.740S494.798S293.740294.778SHA493.740S494.798S293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300Ssterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated number293.840294.782494.300Ssterile can be differentiated number				
293.5805294.7755493.530494.793293.5905294.776493.5305494.7935293.5905294.7765493.540494.794293.640294.7765HA493.5405494.7945293.680294.777493.5805494.7955293.6805294.7775HA493.5805494.7955293.6905294.7785HA493.5905494.7965293.6905294.7785HA493.5905494.7965293.7305294.7785HA493.7405494.7985293.7405294.7785HA493.7405494.7985293.7405294.7795HA493.8405Products available non-sterile and sterile can be differentiated with the 293.7405293.7405294.7795HA494.3005sterile can be differentiated number	293.5405	294.7745	493.520	
293.590294.776493.530S494.793S293.590S294.776S493.540494.794293.640294.776SHA493.540S494.794S293.680294.777493.580S494.795S293.680S294.777SHA493.580S494.795S293.690294.77SHA493.590S494.796S293.690S294.778S493.590S494.796S293.730S294.778SHA493.740S494.798S293.740294.778SHA493.740S494.798S293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740S294.779SHA494.300Ssterile can be differentiated number	293.580	294.775	493.520S	494.7925
293.590294.776493.530S494.793S293.590S294.776S493.540494.794293.640294.776SHA493.540S494.794S293.680294.777493.580S494.795S293.680S294.777SHA493.580S494.795S293.690294.77SHA493.590S494.796S293.690S294.778S493.590S494.796S293.730S294.778SHA493.740S494.798S293.740294.778SHA493.740S494.798S293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740S294.779SHA494.300Ssterile can be differentiated number	293 5805	29/1 7755	493 530	191 793
293.590S294.776S493.540494.794293.640294.776SHA493.540S494.794S293.680294.777493.580494.795293.680S294.777S493.580S494.795S293.690294.77SHA493.590S494.796S293.690S294.778493.590S494.796S293.730294.778S493.740S494.798S293.730S294.778SHA493.740S494.798S293.740294.779S493.840SProducts available non-sterile and293.740S294.779SHA494.300Ssterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated number				
293.640294.776SHA493.540S494.794S293.680294.777493.580494.795293.680S294.777S493.580S494.795S293.690294.77SHA493.590494.796293.690S294.778493.590S494.796S293.730294.778S493.740C494.798S293.730S294.778SHA493.740S494.798S293.740294.779S493.8401293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated number	293.590		493.5305	494.7935
293.640294.776SHA493.540S494.794S293.680294.777493.580494.795293.680S294.777S493.580S494.795S293.690294.77SHA493.590494.796293.690S294.778493.590S494.796S293.730294.778S493.740C494.798S293.730S294.778SHA493.740S494.798S293.740294.779S493.8401293.740S294.779SHA493.840SProducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated number	293.5905	294.7765	493.540	494.794
293.680294.777493.580494.795293.680S294.775S493.580S494.795S293.690294.775HA493.590494.796293.690S294.778493.590S494.796S293.730294.778S493.740S494.798S293.730S294.778SHA493.740S494.798S293.740294.779S493.840SYoducts available non-sterile and293.740S294.779SHA494.300sterile can be differentiated with the293.740294.779SHA494.300Ssterile can be differentiated number				
293.6805294.7775493.5805494.7955293.690294.775HA493.590494.796293.6905294.778493.5905494.7965293.730294.7785493.740494.7985293.730294.7785HA493.7405494.7985293.740294.7795493.8405Yoducts available non-sterile and293.7405294.7795HA494.300sterile can be differentiated with the293.790294.7795HA494.3005sterile can be differentiated number				
293.690294.775HA493.590494.796293.6905294.778493.5905494.7965293.730294.7785493.740494.798293.7305294.7785HA493.7405494.7985293.740294.779493.840493.7405293.7405294.7795HA493.8405Products available non-sterile and sterile can be differentiated with the 293.790293.840294.782494.3005suffix "S" added to the article number				
293.690294.775HA493.590494.796293.6905294.778493.5905494.7965293.730294.7785493.740494.798293.7305294.7785HA493.7405494.7985293.740294.779493.840493.7405293.7405294.7795HA493.8405Products available non-sterile and sterile can be differentiated with the 293.790293.840294.782494.3005suffix "S" added to the article number	293.6805	294.7775	493.580S	494.7955
293.690S294.778493.590S494.796S293.730294.778S493.740494.798293.730S294.778SHA493.740S494.798S293.740294.779493.840293.740S294.779SHA493.840SProducts available non-sterile and de differentiated with the 293.790293.840294.782A494.300Ssterile can be differentiated number				
293.730294.7785493.740494.798293.7305294.7785HA493.7405494.7985293.740294.779493.8401293.7405294.7795493.8405Products available non-sterile and sterile can be differentiated with the 293.840293.840294.782494.3005sterile can be differentiated number				
293.730S 294.778SHA 493.740S 494.798S 293.740 294.779 493.840				
293.730S 294.778SHA 493.740S 494.798S 293.740 294.779 493.840	293.730	294.7785	493.740	494.798
293.740 294.779 493.840 293.740S 294.779S 493.840S Products available non-sterile and 293.790 294.779SHA 494.300 sterile can be differentiated with the 293.840 294.782 494.300S suffix "S" added to the article number				
293.740S 294.779S 493.840S Products available non-sterile and 293.790 294.779SHA 494.300 sterile can be differentiated with the 293.840 294.782 494.300S suffix "S" added to the article number				-5-1.705
293.790 294.779SHA 494.300 sterile can be differentiated with the 293.840 294.782 494.300S suffix "S" added to the article number				
293.790 294.779SHA 494.300 sterile can be differentiated with the 293.840 294.782 494.300S suffix "S" added to the article number	293.7405	294.7795	493.8405	Products available non-sterile and
293.840 294.782 494.300S suffix "S" added to the article number				
293.890 294.782S 494.430 for sterile products.	293.840	294.782	494.3005	suttix "S" added to the article number
	293.890	294.7825	494.430	for sterile products.

Introduction

- Associated device systems with these instructions for use are:
- Elbow Hinge Fixator
- External Distal Radius Fixator
- Hybrid Ring Fixator
- Large and Medium-Size External Fixators
- MEFISTO
- Pelvic C-Clamp
- Schanz Screws and Steinmann Pins
- Segment Transport MEFiSTO
- Small External Fixator
- MAXFRAME Multi-Axial Correction System
- The Distraction Osteogenesis Ring System
- Large Distractor Tibia

Synthes External Fixation and Distraction Systems consists of various implants including Schanz Screws (self-tapping, self-drilling and HA-coated), Steinmann Pins, and Pelvic C-Clamp Cannulated Nails. Schanz Screws and Steinmann Pins can be used in various anatomical locations in the body based on the external fixation and distraction system being utilized. The Pelvic C-Clamp Cannulated Nails are only used in the pelvic ring.

All external fixator implants are single packed. Schanz screws and Steinmann pins are sold sterile and/or non-sterile, while the nails for pelvic C-clamp are only sold non-sterile.

The external fixator instruments listed are reusable and are sold non-sterile.

Important note for medical professionals and operating room staff: These instructions for use do not include all the information necessary for selection and use of a device. Please read the instructions for use and the Synthes brochure "Important Information" carefully before use. Ensure that you are familiar with the appropriate surgical procedure.

Materials

Devices(s)	Material(s)	Standard(s)
Steinmann Pin	Stainless Steel 316L	ISO 5832-1
	Ti-6Al-7Nb (TAN) Titanium Alloy	ISO 5832-11
	Ti-6Al-4V (TAV) Titanium Alloy	ISO 5832-3
	Ti-6Al-4V ELI (TAV) Titanium Alloy	ASTM F136
Schanz Screw	Stainless Steel 316L	ISO 5832-1
	Ti-6Al-7Nb (TAN) Titanium Alloy	ISO 5832-11
	Ti Grade 4 (CP4)	ISO 5832-2 Gr 4A, 4B
	Hydroxyapatite (HA)	ASTM F1185
Nail f/Pelvic C-Clamp	Stainless Steel 316L	ISO 5832-1
	Stainless Steel 301	ISO 7153-1
	PA-66 white	NONE
	Viton	NONE

Intended Use

External Fixator Devices

External Fixator Devices are intended for temporary fixation and intra- and postoperative treatment of open and closed fractures and elective orthopedic interventions.

Maxframe

The DePuy Synthes MAXFRAME Multi-Axial Correction System is intended for external fixation of fractured long bones and bones of the foot, limb lengthening, and deformity correction in adult, children* (3–12), and adolescent* (12–21) patient populations. The DePuy Synthes MAXFRAME Multi-Axial Correction System utilizes software for assisting surgeons in treatment planning.

* in which the growth plates have fused or will not be crossed."

Large Distractor- Tibia

The Large Distractor aids in fracture reduction and holds provisional stabilization prior to definitive fixation such as:

- Distraction
- Rotation
- Valgus-varus
- Anterior-posterior
- Compression

Indications

Please refer to the table at the end of this IFU.

Contraindications

Please refer to the table at the end of this IFU.

Patient Target Group

The product is to be used with respect to the intended use, indications, contraindications and in consideration of the anatomy and health condition of the patient.

Intended User

This IFU alone does not provide sufficient background for direct use of the Device or System. Instruction by a surgeon experienced in handling these devices is highly recommended.

This device is intended to be used by qualified health care professionals e.g. surgeons, physicians, operating room staff, and individuals involved in preparation of the device. All personnel handling the device should be fully aware of the IFU, the surgical procedures, if applicable, and /or the Synthes "Important Information" brochure as appropriate.

Implantation is to take place according to the instructions for use following the recommended surgical procedure. The surgeon is responsible for ensuring that the device is suitable for the pathology/condition indicated and that the operation is carried out properly.

Expected Clinical Benefits

Expected clinical benefits of external fixation and distraction devices such as

- Elbow Hinge Fixator
- External Distal Radius Fixator
- Hybrid Ring Fixator
- Large and Medium-Size External Fixators
- MEFISTO
- Pelvic C-Clamp
- Schanz Screws and Steinmann PinsSegment Transport MEFiSTO
- Small External Fixator
- MAXFRAME Multi-Axial Correction System
- The Distraction Osteogenesis Ring System
- Large Distractor Tibia

when used according to instructions for use and recommended technique are,

- Stabilize bone segment and facilitate healing
- Restore anatomical relationship and function
- Provide minimally invasive technique
- Allow adjustments postoperatively.

A summary of safety and clinical performance can be found at the following link: <u>http://ec.europa.eu/tools/eudamed</u>

Note: The EUDAMED link will only be available after the European database on medical devices, EUDAMED, is launched.

Performance Characteristics of the Device

Synthes has established the performance and safety of External fixation and distraction systems, and that they represent state of the art medical devices for distraction, temporary fixation and intra- and post-operative treatment of open and closed fractures and for elective orthopedic interventions when used according to their instructions for use and labeling.

Potential Adverse Events, Undesirable Side Effects and Residual Risks

- Adverse Tissue Reaction, Allergy/Hypersensitivity Reaction
- Infection
- Poor Joint Mechanics
- Damage to Surrounding Structures
- Damage to Vital Organs
- Malunion/Non-unionNeuro-vascular Damage
- Pain
- Bone Damage including Intra-and Post-Operative Bone Fracture, Osteolysis, or Bone Necrosis
- Soft Tissue Damage
- Injury to User
- Symptoms resulting from Implant Migration, Loosening, Bending, or Breakage

Sterile Device



Sterilized using irradiation

Store sterile devices in their original protective packaging, and do not remove them from the packaging until immediately before use.



Do not use when packaging is damaged.

Prior to use, check the product expiration date and verify the integrity of the sterile packaging. Do not use, if the package is damaged or date of expiration has passed.

Do not resterilize

Re-sterilization of Synthes hydroxyapatite (HA) coated Schanz Screws can result in product not being sterile, and/or not meeting performance specifications and/or altered material properties.

Single-Use Device



Indicates a medical device that is intended for one use, or for use on a single patient during a single procedure.

Re-use or clinical reprocessing (e.g. cleaning and resterilization) may compromise the structural integrity of the device and/or lead to device failure which may result in patient injury, illness or death.

Furthermore, reuse or reprocessing of single-use devices may create a risk of contamination e.g. due to the transmission of infectious material from one patient to another. This could result in injury or death of the patient or user.

Contaminated implants must not be reprocessed. Any Synthes implant that has been contaminated by blood, tissue, and/or bodily fluids/matter should never be used again and should be handled according to hospital protocol. Even though they may appear undamaged, the implants may have small defects and internal stress patterns that may cause material fatigue.

Warnings and Precautions

Please refer to the table at the end of this IFU.

Combination of Medical Devices

Synthes has not tested compatibility with devices provided by other manufacturers and assumes no liability in such instances.

MAXFRAME 3D Software is required for treatment planning in the application of the MAXFRAME System, accessible at www.MAXFRAME3d.com. Please refer to the MAXFRAME 3D Software User's Manual for a full description of how to use the software.

Magnetic Resonance Environment

Please refer to the table at the end of this IFU.

Treatment before Device is Used

Non-Sterile Device:

Synthes products supplied in a non-sterile condition must be cleaned and steam-sterilized prior to surgical use. Prior to cleaning, remove all original packaging. Prior to steam-sterilization, place the product in an approved wrap or container. Follow the cleaning and sterilization instruction given by the Synthes brochure "Important Information".

Sterile Device:

The devices are provided sterile. Remove products from the package in an aseptic manner

Store sterile devices in their original protective packaging, and do not remove them from the packaging until immediately before use.

Prior to use, check the product expiration date and verify the integrity of the sterile packaging. Do not use, if the package is damaged.

Implant Removal

External Distal Radius Fixator

After successful distraction, tighten the screw on the clamp. Remove the distractor by aligning the thumb wheel and loosening the screw on the distractor.

Hybrid Ring Fixator

Implants can be removed by using general surgical instruments.

Pelvic C-Clamp

The Pelvic C-Clamp is removed prior to definitive treatment of the posterior pelvic ring injury. Be sure to remove protective caps from cannulated nails and Kirschner wire from uninjured side.

MAXFRAME -- Multi-Axial Correction System

- 1. Using the Wrench \varnothing 8.0/11.0 mm, loosen the nuts on all Clamping Bolts for Schanz screws
- Remove all Schanz screws using the Small Universal Chuck with T-Handle. 2
- Cut all wires on both sides about 2-3 cm from the skin edge inside the ring. 3. Remove wire remnants attached to the frame, or curl the ends of the wire connected to the frame to prevent inadvertent abrasions to the skin. Prepare the wire on the side of the skin that will be pulled through the soft tissue and bone
- Slide the intact frame off the affected limb. If necessary, unlock the struts to 4 facilitate removal of the frame.
- 5. Remove all wires. Ensure all wires are straight prior to removal.

The Distraction Osteogenesis Ring System

Implants can be removed by using general surgical instruments

Troubleshooting

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Clinical Processing of the Device

Detailed instructions for processing of implants and reprocessing of reusable devices, instrument trays and cases are described in the Synthes brochure "Important Information". Assembly and disassembly instructions of instruments "Dismantling multipart instruments" are available on the website.

Disposal

Any Synthes implant that has been contaminated by blood, tissue, and/or bodily fluids/matter should never be used again and should be handled according to hospital protocol.

Devices must be disposed of as a healthcare medical device in accordance with hospital procedures

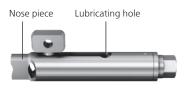
Special Operating Instructions

Maxframe – Technique

Wire Tensioner (03.312.001)



Back-up Wire Tightener (03.311.008)



Clean and sterilize the Wire Tensioner and Back-up Wire Tightener according to Synthes Important Information. Lubricate the tensioners according to instruction below.

Maintenance Instructions

To lubricate the tensioners prior to sterilization:

- 1. Apply 4-6 drops of Autoclavable Oil (519.97):
 - Into each lubricating hole;
 - Into the cannulation at the back end of the instrument, with the tensioner in a vertical position; and
- Into the cannulation of the nosepieces, with the tensioner in a vertical position
 Spread the oil throughout the mechanism by rotating the knob through several

full turns.

Note: Failure to clean and lubricate the tensioner after each use may result in poor performance and reduced operating life of the instrument.

MEFiSTO – Technique

Standard Clamp (392.903), Connecting piece for T-Assembly (392.907), Ring Clamp (392.913) and Tube Clamp (392.911)

Checking function

After cleaning and assembling MEFiSTO, the following must be checked:

- Unhindered sliding of the clamps on the central body.
- Full swivelling range of the saddle joints.
- The screws of the clamps must tighten and loosen easily.
- Smooth turning of the Allen key in the openings of the central body and unimpeded extension to the STOP.
- Correct fit of the Allen key.
- Unhindered turning of the dynamization cap in the sleeve.
- Exact fit of the spanner on the cap.
- Easy assembly of the single pin clamps and the connecting piece for T-assembly.

Checking for wear

Visual inspection for wear of the fixation parts after every use is essential. In particular, the rills in the saddle joint and saddle washer of the standard clamps must be inspected for wear. If there are any visible signs of wear, the component in question should not be used any longer. The decision to reuse it rests with the surgeon. The parts of the standard clamps (excluding the screws), the sleeves and the splined shaft of the central body cannot be ordered as spare parts.

Elbow Hinge Fixator			-
Indications	Contraindications	Warnings and Precautions	MR Information
The guided, joint-bridging external fixator assembly is suitable for supplementary treatment of complex upsta-	There are no specific contrain- dications for the	 Distally, a dorsal approach to the humerus is appropriate. Proximally, it is recommendable to introduce the Schanz screws from a ven- trolateral direction, caudal to the path of the 	MR Conditional Elbow Hinge Fixator devices used in a typical construct in-
treatment of complex, unsta- ble elbow injuries when early functional stress is impossible due to persistent ligamental instability. The most important indica- tions for guided joint bridg- ing with external fixators are: – Delayed treatment of dislo- cated and rigid elbows – Chronic, persistent joint in- stability – Acute joint instability after complex ligamentary inju- ries – Unstable elbow fractures For adults, Elbow Hinge Fixa- tor is preferably configured with the components of the large external fixator (rod diameter: Ø 11 mm), and with components of the medium-size external fixator (rod diameter: Ø 8 mm) for children and small adults.	Elbow Hinge Fixator.	 trolateral direction, caudal to the path of the axillary nerve. Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. The SELDRILL Schanz Screw has been developed to minimise heat development. Nevertheless, slow insertion and additional cooling (for example with a Ringer solution) are recommended. The tip of the SELDRILL Schanz Screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Only when bones are osteoporotic, the SELDRILL Schanz Screw have to be screwed a bit further into the distant cortical bone, and it may even slightly penetrate through it since this can increase anchoring stability. Implant sites should be meticulously cared to avoid pintract infection. Schanz screws may be surrounded with antiseptic coated foam sponges in an effort to avoid infection. An implant-site care procedure should be reviewed with the patient. To minimize the risk of pin track infection, the following points should be observed: a. Placement of Schanz screws taking anatomy into consideration (ligaments, nerves, arteries). b. Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. c. Release of skin tension at soft tissue entry point of implant. The treating physician should make patient specific clinical judgment and decision to use External Fixation. Patients who for social and physical reasons are not suitable for an External Fixator. Patients who for social and physical reasons are not suitable for an External Fixator. Patients who for social and physical reasons are not suitable for an External Fixator. Patients who for social and physical reasons are not suitable for an External Fixator. 	 Elbow Hinge Exator devices used in a typical construct in- clude clamps, rods and various attachments. A patient with a Synthes Elbow Hinge Fixator frame may be scanned safely after placement of the frame under the following conditions: Static magnetic field of 1.5 Tesla or 3.0 Tesla when the fixator frame is positioned: – 7 cm or less from within the outside edge of the bore of the MRI at Normal Operating Mode or – completely outside of the MRI Bore in First Level Control Mode Highest spatial gradient magnetic field of 900 Gauss/cm or less Maximum MR system reported whole body averaged specific absorption rate (SAR) of 2 W/kg for the Normal Operating Mode and 4 W/kg for the First Level Controlled Mode for 15 minutes of scanning Use only whole body RF transmit coil, no other transmit coils are allowed, local receive only coils are allowed. Precautions: Patients may be safely scanned in the MRI chamber under the above conditions. Under such conditions the maximum expected temperature rise is less than 6 °C. Because higher in vixo heating cannot be excluded, close patient monitoring and communication with the patient during the scan are required. Immediately abort the scan if the patient reports burning sensation or pain. To minimize heating, the scan time should be as short as possible, the SAR as low as possible and the device should be as far as possible from the edge of the bore. Temperature rise values obtained were based upon a scan time of 15 minutes. The above field conditions should be compared with those of the user's MR system in order to determine if the item can safely be brought into the user's MR environment. If placed in the bore of the MR scanner doring, Synthes Elbow Hinge Fixator System Only use frame components stated in the surgical tech- nique of the Elbow Hinge Fixator System Dot not place any radio frequency (RF) transmit c

External Distal Radius Fixat		Warnings and Processitions	MD Information
Indications	Contraindications	Warnings and Precautions	MR Information
Unstable distal radius frac- tures	There are no specific contrain-	 Select the appropriate Schanz screw for the pa- tient's bony anatomy. 	MR Conditional
– Intra-articular	dications for the	 Instruments and screws may have sharp edges 	
– Extra-articular	External Distal		Distal Radius Fixator devices used in a typical construct in-
 Preliminary fixation before 	Radius Fixator.	or moving joints that may pinch or tear user's glove or skin.	clude clamps, rods and various attachments. A patient with a
,	Naulus Hixatol.	 Handle devices with care and dispose worn 	Synthes Distal Radius Fixator frame may be scanned safely
open reduction and inter- nal fixation			after placement of the frame under the following conditions:
 Fractures with open and 		bone cutting instruments in an approved sharps container.	- Static magnetic field of 1.5 Tesla or 3.0 Tesla when the
closed soft tissue injury		 The SELDRILL Schanz Screw has been devel- 	fixator frame is positioned:
 Multiple trauma (in terms 		oped to minimize heat development. Neverthe-	 7 cm or less from within the outside edge of the bore
of "damage control		less, slow insertion and additional cooling (for	of the MRI at Normal Operating Mode or
surgery" injury-adapted		example with a Ringer solution) are recom-	- Completely outside of the MRI Bore in First Level Control
care)		mended.	Mode
carcy		 The tip of the Schanz Screw should be embed- 	 Highest spatial gradient magnetic field of 900 Gauss/cm
Injuries, fractures, disloca-		ded in the far cortex to effectively resist cantile-	or less
tions, burns in the area of:		ver forces and to provide sufficient stability.	 Maximum MR system reported whole body averaged
– Hand		 Only when bones are osteoporotic does the 	specific absorption rate (SAR) of 2 W/kg for the Normal
– Wrist		Schanz Screw have to be screwed a bit further	Operating Mode and 4 W/kg for the First Level Controlled
– Forearm		into the distant cortical bone, and it may even	Mode for 15 minutes of scanning
		slightly penetrate through it since this can in-	- Use only whole body RF transmit coil, no other transmit
Fractures in combination with		crease anchoring stability.	coils are allowed, local receive only coils are allowed
- Extensive soft tissue		- Implant sites should be meticulously cared to	
injuries		avoid pin-tract infection. Schanz screws may be	Precautions: Patients may be safely scanned in the MRI
– Bone loss		surrounded with antiseptic coated foam spong-	chamber under the above conditions. Under such conditions,
- Vascular and/or neural in-		es in an effort to avoid infection. An im-	the maximum expected temperature rise is less than 6°C. Be-
volvement		plant-site care procedure should be reviewed	cause higher in vivo heating cannot be excluded, close pa-
		with the patient.	tient monitoring and communication with the patient during
Fracture dislocation		- To minimize the risk of pin-track infection the	the scan are required. Immediately abort the scan if the pa-
– Hand		following points should be observed:	tient reports burning sensation or pain. To minimize heating,
		a. Placement of Schanz screws taking anatomy	the scan time should be as short as possible, the SAR as low
Failed closed reduction with		into consideration (ligaments, nerves,	as possible and the device should be as far as possible from
casting resulting in secondary		arteries).	the edge of the bore. Temperature rise values obtained were based upon a scan time of 15 minutes.
dislocation		b. Slow insertion and/or cooling, particularly in	The above field conditions should be compared with those of
 Radial shortening 		dense, hard bone to avoid heat necrosis.	the user's MR system in order to determine if the item can
 Angulation 		c. Release of skin tension at soft tissue entry	safely be brought into the user's MR environment.
		point of implant.	If placed in the bore of the MR scanner during scanning,
		 The treating physician should make patient 	Synthes Distal Radius Fixator devices may have the potential
		specific clinical judgment and decision to use	to cause artifact in the diagnostic imaging.
		External Fixation System in patients with the	to cause artifact in the diagnostic imaging.
		following conditions:	Warnings:
		 Patients who for social and physical reasons 	 Only use frame components stated in the surgical
		are not suitable for an external fixator.	 technique of the Distal Radius Fixator System
		– Agitation.	 Potential complications of putting a part in the MR field
		 Patients in whom screws cannot be inserted 	are:
		due to a bone or soft tissue disease.	- Torsional forces can cause the device to twist in MR field
			- Displacement forces can pull the device into the MR field
			- Induced currents can cause peripheral nerve stimulation
			- Radio Frequency (RF) induced currents can cause heating
			of the device that is implanted in the patient
			– Do not place any radio frequency (RF) transmit coils over
			the Distal Radius Fixator frame
			Note: In nonclinical testing, the Distal Radius Fixator frame
			was tested in several different configurations. This testing
			was conducted with the construct position 7 cm from within
			the outside edge of the MRI bore. The results showed a maxi-
			mum observed heating for a wrist fixator frame of 6 °C for
			1.5 T and less than 1 °C for 3.0 T with a machine reported
			whole body averaged SAR of 2 W/kg.
			Artifact Information
			MR image quality may be compromised if the area of interest
			is in the same area or relatively close to the position of the
			Synthes Distal Radius Fixator frame. It may be necessary to
			optimize MR imaging parameters in order to compensate for
			the presence of the fixator frame.
			Representative devices used to assemble a typical Distal
			Radius Fixator frame have been evaluated in the MRI cham-
			ber and worst-case artifact information is provided below.
			Overall, artifacts created by Synthes Distal Radius Fixator
			System devices may present issues if the MR imaging area
			of interest is in or near the area where the fixator frame is
			located.
			- For FFE sequence: scan duration 3 minutes, TR 100 ms,TE
			15 ms, flip angle 15° and SE sequence: scan duration
			4 minutes, TR 500 ms, TE 20 ms, flip angle 70° radio echo
			sequence, worst-case artifact will extend approximately 10 cm from the device.
		1	

Hybrid Ring Fixator			
Indications	Contraindications	Warnings and Precautions	MR Information
 The hybrid ring fixator is designed for fixation of complex proximal and distal tibial fractures, especially those involving the joint In soft tissue injuries which make open reduction and internal fixation impossible. In fracture patterns which do not allow placement of Schanz screws for construction of a standard external fixator frame. 	There are no specific contrain- dications for the Hybrid Ring Fixator.	 Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. Implant sites should be meticulously cared to avoid pintract infection. Schanz screws may be surrounded with antiseptic coated foam spong- es in an effort to avoid infection. An implant- site care procedure should be reviewed with the patient. To minimize the risk of pin track infection the following points should be observed: a. Placement of Schanz screws taking anatomy into consideration (ligaments, nerves, arteries). b. Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. c. Release of skin tension at soft tissue entry point of implant. 	The DePuy Synthes "Hybrid Ring Fixator" has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the "Hybrid Ring Fixator" in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

Large and Medium-Size Ext	T	W. : 10	
Indications	Contraindications	Warnings and Precautions	MR Information
The Large External Fixator (rod diameter: 11 mm) is par-	There are no specific contrain-	 During Iliac crest pin placement: To keep from damaging the femoral cutaneous nerve, avoid 	MR Conditional
ticularly suitable for treating	dications for the	insertion up to 15 mm in a dorsal direction	
the lower extremities. The	Large and	from the superior anterior iliac spine.	Large External Fixator devices used in a typical construct in-
Medium External Fixator	Medium-Size	– When dealing with the humerus, primary con-	clude clamps, rods and various attachments. A patient with
(rod diameter: 8 mm) is par-	External Fixators.	sideration should be given to the radial and ax-	Synthes Large External Fixator frame may be scanned safely
ticularly appropriate for the		illary nerves.	after placement of the frame under the following conditions – Static magnetic field of 1.5 Tesla or 3.0 Tesla when the
extremities of adults, and the		 Proximally, it is recommendable to introduce 	fixator frame is positioned outside the MRI Bore at Norma
upper and lower extremities of children and small adults.		the Schanz screws from a ventrolateral direc- tion, caudal to the path of the axillary nerve.	Operator or in First Level Control Mode
The most important indica-		 Select the appropriate Schanz screw or Stein- 	- Highest spatial gradient magnetic field of 720 Gauss/cm o
tions for Large and Medium		mann pin for the patient's bony anatomy.	less
External Fixators are:		 Instruments and screws may have sharp edges 	 Maximum MR system reported whole body averaged specific abcomption rate (SAR) of 2 W//rg for the Normal
 Second and third-degree 		or moving joints that may pinch or tear user's	specific absorption rate (SAR) of 2 W/kg for the Normal Operating Mode and 4 W/kg for the First Level Controlled
open fractures		glove or skin.	Mode for 15 minutes of scanning
 Infected pseudoarthrosis Rapid, initial immobiliza- 		 Handle devices with care and dispose worn bone cutting instruments in an approved sharps 	– Use only whole body RF transmit coil, no other transmit
tion of soft tissue injuries		container.	coils are allowed, local receive only coils are allowed
and fractures in severely		- The SELDRILL Schanz screw has been developed	 Specialty coils, such as knee or head coils, should not be
injured patients		to minimize heat development. Nevertheless,	used as they have not been evaluated for RF heating and
Immobilization of closed		slow insertion and additional cooling (for exam-	may result in higher localized heating.
fractures with severe soft		ple with a Ringer solution) are recommended.	Precautions: Patients may be safely scanned in the MRI
tissue trauma (bruising of the soft tissue mantle,		 Only when bones are osteoporotic does the SELDRILL Schanz screw have to be screwed a 	chamber under the above conditions. Under such conditions
burns, skin diseases)		bit further into the distant cortical bone, and it	the maximum expected temperature rise is less than 6 °C.
- Extensive shaft and periar-		may even slightly penetrate through it since this	Because higher in vivo heating cannot be excluded, close pa
ticular fractures		can increase anchoring stability.	tient monitoring and communication with the patient during
 Transient joint-bridging 		- The tip of the self-tapping Schanz screw should	the scan are required. Immediately abort the scan if the pa- tient reports burning sensation or pain. To minimize heating
immobilization in severe		be embedded in the far cortex to effectively	the scan time should be as short as possible, the SAR as low
soft tissue and ligament		resist cantilever forces and to provide sufficient	as possible and the device should be as far as possible from
injuries Certain injuries to the		stability. – Implant sites should be meticulously cared to	the edge of the bore. Temperature rise values obtained were
pelvic ring, and selected		avoid pintract infection. Schanz screws and	based upon a scan time of 15 minutes.
fractures in children		Steinmann pins may be surrounded with anti-	The above field conditions should be compared with those of
Arthrodeses and osteo-		septic coated foam sponges in an effort to	the user's MR system in order to determine if the item can
tomies		avoid infection. An implant-site care procedure	safely be brought into the user's MR environment. If placed in the bore of the MR scanner during scanning,
		should be reviewed with the patient.	Synthes Large External Fixator devices may have the potentia
		 To minimize the risk of pin track infection the following points should be observed: 	to cause artifact in the diagnostic imaging.
		a. Placement of Schanz screws and Steinmann	
		pins taking anatomy into consideration	Warnings:
		(ligaments, nerves, arteries).	 Only use frame components stated in the surgical tech- ninus of the Lenge Future of Firster Surters
		b. Slow insertion and/or cooling, particularly in	nique of the Large External Fixator System – Potential complications of putting a part in the MR field
		dense, hard bone to avoid heat necrosis.	are:
		c. Release of skin tension at soft tissue entry point of implant.	- Torsional forces can cause the device to twist in MR fiel
			- Displacement forces can pull the device into the MR field
		- The treating physician should make patient	 Induced currents can cause peripheral nerve stimulation
		specific clinical judgment and decision to use	 Radio Frequency (RF) induced currents can cause heatir of the device that is implanted in the patient
		External Fixation System in patients with the	 Do not place any radio frequency (RF) transmit coils over
		following conditions:	the Large External Fixator frame.
		 Patients who for social and physical reasons are not suitable for an external fixator. 	
		 Patients in whom screws cannot be inserted 	Note: In nonclinical testing, the Large External Fixator device
		due to a bone or soft tissue disease.	es were tested in several different configurations. This testin
			was conducted with the construct position 7 cm from within
			the outside edge of the MRI bore. The results showed a maximum observed heating of less
			than 6 °C for 1.5 T and 3.0 T with a machine reported whole
			body averaged SAR of 2 W/kg.
			Artifact Information
			MR image quality may be compromised if the area of intere
			is in the same area or relatively close to the position of the
			Synthes Large External Fixator frame. It may be necessary to optimize MR imaging parameters in order to compensate for
			the presence of the fixator frame.
			Representative devices used to assemble a typical Large
			External Fixator frame have been evaluated in the MRI
			chamber and worst-case artifact information is provided be
			low. Overall, artifacts created by Synthes Large External
			ixator System devices may present issues if the MR imaging
			area of interest is in or near the area where the fixator frame
			is located. – For FFE sequence: scan duration 3 minutes, TR 100 ms,
			TE 15 ms, flip angle 15° and SE sequence: scan duration
			4 minutes, TR 500 ms, TE 20 ms, flip angle 70° radio echo
			sequence, worst-case artifact will extend approximately
	1	1	10 cm from the device.

Medium External Fixators	
	MR Information
	MR Conditional
	 Medium External Fixator devices used in a typical construct include clamps, rods and various attachments. A patient with a Synthes Medium External Fixator frame may be scanned safely after placement of the frame under the following conditions: Static magnetic field of 1.5 Tesla or 3.0 Tesla when the fixator frame is positioned: 7 cm or less from within the outside edge of the bore of the MRI at Normal Operating Mode or Completely outside of the MRI Bore in First Level Control Mode Highest spatial gradient magnetic field of 900 Gauss/cm or less Maximum MR system reported whole body averaged specific absorption rate (SAR) of 2 W/kg for the Normal Operating Mode and 4 W/kg for the First Level Controlled Mode for 15 minutes of scanning Use only whole body RF transmit coil, no other transmit coils are allowed, local receive only coils are allowed. Precautions: Patients may be safely scanned in the MRI chamber under the above conditions. Under such conditions, the maximum expected temperature rise is less than 6 °C. Because higher in vivo heating cannot be excluded, close patient monitoring and communication with the patient during the scan are required. Immediately abort the scan if the patient reports burning sensation or pain. To minimize heating the scan time should he as schort are noscible. the
	heating, the scan time should be as short as possible, the SAR as low as possible and the device should be as far as possible from the edge of the bore. Temperature rise values obtained were based upon a scan time of 15 minutes. The above field conditions should be compared with those of the user's MR system in order to determine if the item can safely be brought into the user's MR environment. If placed in the bore of the MR scanner during scanning, Synthes Medium External Fixator devices may have the potential to cause artifact in the diagnostic imaging. Warnings:
	 Only use frame components stated in the surgical technique of the Medium External Fixator System Potential complications of putting a part in the MR field are Torsional forces can cause the device to twist in MR field Displacement forces can pull the device into the MR field Induced currents can cause peripheral nerve stimulation Radio Frequency (RF) induced currents can cause heating of the device that is implanted in the patient Do not place any radio frequency (RF) transmit coils over the Medium External Fixator frame
	Note: In nonclinical testing, the Medium External Fixator frame was tested in several different configurations. This testing was conducted with the construct position 7 cm from within the outside edge of the MRI bore. The results showed a maximum observed heating for a wrist fixator frame of 6 °C for 1.5 T and less than 1 °C for 3.0 T with a machine reported whole body averaged SAR of 2 W/kg.
	Artifact Information MR image quality may be compromised if the area of interest is in the same area or relatively close to the position of the Synthes Medium External Fixator frame. It may be necessary to optimize MR imaging parameters in order to compensate for the presence of the fixator frame. Representative devices used to assemble a typical Medium External Fixator frame have been evaluated in the MRI cham- ber and worst-case artifact information is provided below. Overall, artifacts created by Synthes Medium External Fixator System devices may present issues if the MR imaging area of interest is in or near the area where the fixator frame is located. – For FFE sequence: scan duration 3 minutes, TR 100 ms,TE 15 mr, flip angle 15° and 55 ergumence; scan duration
	15 ms, flip angle 15° and SE sequence: scan duration 4 minutes, TR 500 ms, TE 20 ms, flip angle 70° radio echo sequence, worst-case artifact will extend approximately 10 cm from the device.

Indications	Contraindications	Warnings and Precautions	MR Information
 For all indications where external fixation is the suit- able form of treatment: Fractures of the tibia and femur with severe soft tissue injury Immediate immobilization of fractures with or with- out soft tissue injury in se- verely injured, multiply in- jured or polytrauma patients Immobilization of closed fractures with severe soft tissue trauma (crushing of soft tissue, burns, derma- tological affections) Extensive diaphyseal and periarticular fractures Temporary transarticular stabilization of severe soft tissue injuries and dam- aged ligaments Infected pseudarthroses Corrective osteotomies or corticotomies in the treat- ment of axial deviation and length difference (correc- tion of axis, bone length- ening) Complex proximal and distal tibial fractures Certain pelvic ring disrup- tions Treatment of tibial and femoral shaft fractures in children 	There are no specific contrain- dications for the MEFiSTO.	 Select the appropriate Schanz screw for the patient's bony anatomy. Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. The SELDRILL Schanz screw has been developed to minimize heat development. Nevertheless, slow insertion and additional cooling (for example with a Ringer solution) are recommended. The tip of the SELDRILL Schanz screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Implant sites should be meticulously cared to avoid pintract infection. Schanz screws may be surrounded with antiseptic coated foam sponges in an effort to avoid infection. An implant-site care procedure should be reviewed with the patient. To minimize the risk of pin track infection the following points should be observed: a. Placement of Schanz screws taking anatomy into consideration (ligaments, nerves, arteries). b. Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. c. Release of skin tension at soft tissue entry point of implant. The treating physician should make patient specific clinical judgment and decision to use External Fixation System in patients with the following conditions: Patients who for social and physical reasons are not suitable for an external fixator. Agitation. 	The DePuy Synthes "MEFiSTO" has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the "MEFiSTO" in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

Pelvic C-Clamp			
Indications	Contraindications	Warnings and Precautions	MR Information
The Pelvic C-Clamp is indicat- ed for emergency stabiliza- tion of sacrum fractures or disruptions of the sacroiliac joint with associated circula- tory instability.	There are no specific contrain- dications for the Pelvic C-Clamp.	 Avoid use where: Fractures of the ilium are present as there is risk of pin perforation through the fracture line. There are comminuted sacral fractures with the risk of compression of the sacral nerve plexus. Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. Select the appropriate Schanz screw for the patient's bony anatomy. If the nails are placed too ventrally to the correct insertion point, there is a risk of perforation of the ilium, which can result in organ injury. Placement of the pins in an excessively dorsal position may result in injury to gluteal nerves and vessels. Inserting the nail too distally endangers the sciatric nerve and the gluteal vessels in the sciatric note, combined with excessive compression, can result in unwanted nail penetration. Do not use the Pelvic C-Clamp to lift the patient. 	The DePuy Synthes "Pelvic C-Clamp" has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the "Pelvic C-Clamp" in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

Schanz Screws and Steinmann Pins			
Indications	Contraindications	Warnings and Precautions	MR Information
Indications Synthes SELDRILL, Self-tap- ping, Hydroxyapatite-coated Schanz Screws and Stein- mann Pins are indicated for use with an external fixation system.	Contraindications There are no specific contrain- dications for the Schanz Screws and Steinmann Pins.	 Warnings and Precautions Select the appropriate Schanz Screw (self-tapping, SELDRILL, Hydroxyapatite) or Steinmann pin for the patient's bony anatomy. Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. The SELDRILL Schanz Screw has been developed to minimize heat development. Nevertheless, slow insertion and additional cooling (for example with a Ringer solution) are recommended. The tip of the SELDRILL Schanz Screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Only when bones are osteoporotic does the SELDRILL Schanz Screw have to be screwed a bit further into the distant cortical bone, and it may even slightly penetrate through it since this can increase anchoring stability. The tip of the Self-tapping Schanz Screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Implant sites should be meticulously cared to avoid pintract infection. Schanz Screws and Steinmann pins may be surrounded with antiseptic coated foam sponges in an effort to avoid infection. An implant-site care procedure should be reviewed with the patient. To minimize the risk of pin tract infection the following points should be observed: a. Placement of Schanz Screws and Steinmann pinstaking anatomy into consideration (ligaments, nerves, arteries). b. Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. c. Release of skin tension at soft tissue entry point of implant During Iliac crest pin placement: To keep from damaging the femoral cutaneous nerve, avoid insertion up to 15 mm in a dorsal direction from the superior anterior iliac spine. When dealing with the humerus, primary consideration shoul	MR Information MR Conditional Non-clinical testing has been performed to assess Torque, Displacement and Image Artifacts according to ASTM F 2213-06, ASTM F 2052-06e1 and ASTM F 2119-07 and Radio-Frequency (RF) induced heating according to ASTM F 2182-11a. These tests have not been done on the individual implants but on the entire external fixator construct.

Indications	Contraindications	Warnings and Precautions	MR Information
Tibial and femoral segment transport in: - post-traumatic defects with or without deformity - necrosis - infections - pseudarthroses - tumours	There are no pecific contraindi- cations for the Segment Trans- port MEFiSTO.	 Select the appropriate Schanz screw for the patient's bony anatomy. The tip of the self-tapping Schanz screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Only when bones are osteoporotic, the SELDRILL™ Schanz screw has to be screwed a bit further into the distant cortical bone, and it may even slightly penetrate through it since this can increase anchoring stability. Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. Implant sites should be meticulously cared to avoid pin tract infection. Schanz screws may be surrounded with antiseptic coated foam sponges in an effort to avoid infection. An implantsite care procedure should be reviewed with the patient. To minimize the risk of pin track infection the following points should be observed: Placement of Schanz screws taking anatomy into consideration (ligaments, nerves, arteries). Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. Release of skin tension at soft tissue entry point of implant. The treating physician should make patient specific clinical judgment and decision to use External Fixation System in patients with the following conditions: Patients who for social and physical reasons are not suitable for an external fixator. Agitation. Patients in whom screws cannot be inserted due to a bone or soft tissue disease. 	The DePuy Synthes "MEFISTO" has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the "MEFISTO" in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

Small External Fixator			
Indications	Contraindications	Warnings and Precautions	MR Information
Unstable distal radius frac-	There are no	 Instruments and screws may have sharp edges 	MR Conditional
tures	specific contrain-	or moving joints that may pinch or tear user's	MR Conditional
– Intra-articular	dications for the Small External	glove or skin.	Small External Fixator devices used in a typical construct in-
 Extra-articular Preliminary fixation before 	Fixator.	 Handle devices with care and dispose worn bone cutting instruments in an approved sharps 	clude clamps, rods and various attachments. A patient with a
open reduction and inter-		container.	Synthes Small External Fixator frame may be scanned safely
nal fixation		– The SELDRILL Schanz screw has been developed	after placement of the frame under the following conditions:
 Fracture with open and 		to minimise heat development. Nevertheless,	- Static magnetic field of 1.5 Tesla or 3.0 Tesla when the
closed soft tissue injury		slow insertion and additional cooling (for exam-	fixator frame is positioned outside the MRI Bore at Normal Operator or in First Level Control Mode
– Multiple trauma (in terms		ple with a Ringer solution) are recommended.	 Highest spatial gradient magnetic field of 720 Gauss/cm
of "damage controlled		- The tip of the SELDRILL Schanz screw should be	or less
surgery" – injury-adapted care)		embedded in the far cortex to effectively resist cantilever forces and to provide sufficient	- Maximum MR system reported whole body averaged
		stability.	specific absorption rate (SAR) of 2 W/kg for the Normal
Other indications		 Select the appropriate Schanz screw for the 	Operating Mode and 4 W/kg for the First Level Controlled
Injuries, fractures,		patient's bony anatomy.	Mode for 15 minutes of scanning – Use only whole body RF transmit coil, no other transmit
dislocations, burns		 Only when bones are osteoporotic does the 	coils are allowed, local receive only coils are allowed
 Carpal region Wrist 		SELDRILL Schanz screw have to be screwed a	 Specialty coils, such as knee or head coils, should not be
– Forearm		bit further into the distant cortical bone, and it may even slightly penetrate through it since this	used as they have not been evaluated for RF heating and
– Ankle (possibly in combina-		can increase anchoring stability.	may result in higher localized heating.
tion with a medium or		– The tip of the Self-tapping Schanz screw should	
large fixator)		be embedded in the far cortex to effectively	Precautions: Patients may be safely scanned in the MRI
		resist cantilever forces and to provide sufficient	chamber under the above conditions. Under such conditions, the maximum expected temperature rise is less than 6 °C.
Fractures in combination with		stability.	Because higher in vivo heating cannot be excluded, close
 Extensive soft tissue injuries 		- Implant sites should be meticulously cared to	patient monitoring and communication with the patient
 Bone loss Vascular and/or neural 		avoid pintract infection. Schanz Screws may be surrounded with antiseptic coated foam spong-	during the scan are required. Immediately abort the scan if
involvement		es in an effort to avoid infection. An implant-	the patient reports burning sensation or pain. To minimize
		site care procedure should be reviewed with	heating, the scan time should be as short as possible, the
Fracture dislocation		the patient.	SAR as low as possible and the device should be as far as possible from the edge of the bore. Temperature rise values
 Carpal bones 		– To minimize the risk of pin track infection the	obtained were based upon a scan time of 15 minutes.
		following points should be observed:	The above field conditions should be compared with those of
Failed closed reduction with casting resulting in secondary		a. Placement of Schanz screws taking anatomy into consideration (ligaments, nerves,	the user's MR system in order to determine if the item can
dislocation		arteries).	safely be brought into the user's MR environment.
 Radial shortening 		b. Slow insertion and/or cooling, particularly in	If placed in the bore of the MR scanner during scanning,
– Angulation		dense, hard bone to avoid heat necrosis.	Synthes Small External Fixator devices may have the potential
		c. Release of skin tension at soft tissue entry	to cause artifact in the diagnostic imaging.
		point of implant.	Warnings:
		- The treating physician should make patient	 Only use frame components stated in the surgical tech-
		specific clinical judgment and decision to use External Fixation System in patients with the	nique of the Small External Fixator System.
		following conditions:	- Potential complications of putting a part in the MR field
		 Patients who for social and physical reasons 	are:
		are not suitable for an external fixator.	 Torsional forces can cause the device to twist in MR field Displacement forces can pull the device into the MR field
		– Agitation.	 Induced currents can cause peripheral nerve stimulation
		 Patients in whom screws cannot be inserted 	 Radio Frequency (RF) induced currents can cause heating
		due to a bone or soft tissue disease.	of the device that is implanted in the patient.
			- Do not place any radio frequency (RF) transmit coils over
			the Small External Fixator frame.
			Note: In nonclinical testing, the Small External Fixator frame
			was tested in several different configurations. This testing
			was conducted with the construct position 7 cm from within
			the outside edge of the MRI bore.
			The results showed a maximum observed heating for the
			wrist fixator frame of less than 4 °C for 1.5 T and less than
			2 °C for 3.0 T with a machine reported whole body averaged
			SAR of 2 W/kg.
			Artifact Information
			MR image quality may be compromised if the area of interest
			is in the same area or relatively close to the position of the
			Synthes Small External Fixator frame. It may be necessary to
			optimize MR imaging parameters in order to compensate for
			the presence of the fixator frame.
			Representative devices used to assemble a typical Small Ex- ternal Fixator frame have been evaluated in the MRI chamber
			and worst-case artifact information is provided below. Over-
			all, artifacts created by Synthes Small External Fixator System
			devices may present issues if the MR imaging area of interest
			is in or near the area where the fixator frame is located.
			- For FFE sequence: scan duration 3 minutes, TR 100 ms,
			TE 15 ms, flip angle 15° and SE sequence: scan duration
			4 minutes, TR 500 ms, TE 20 ms, flip angle 70° radio echo
			sequence, worst-case artifact will extend approximately 10 cm from the device.

MAXFRAME – Multi-Axial Correction System						
Indications	Contraindications	Warnings and Precautions	MR Information			
The DePuy Synthes MAX- FRAME System is indicated for the following treatments in adults and in both children (3–12) and adolescents (12–21) in which the growth plates have fused or will not be crossed with hardware: - fracture fixation (open and closed) - pseudoarthrosis of long bones - limb lengthening (epiphyseal or metaphyseal distraction) - joint arthrodesis - infected fractures or non- unions - correction of bony or soft tissue deformities - correction of segmental defects	MAXFRAME is not intended for use in the spine.	 Do not combine MAXFRAME Rings with Distraction Osteogenesis rings for construction of the frame with one exception: Distraction Osteogenesis half rings (03.311.312, 315, 318, 320) can be used to close off the MAXFRAME Foot Plates. The MAXFRAME 3D Software can- not create a treatment plan using Distraction Osteogenesis rings. Do not bend wires to attach them to the ring as this could increase the risk of wire breakage. See the next page for offset fixation options. To maintain proper alignment of the Schanz screw, you must use the Clamping Bolt, cannu- lated, for Schanz Screws, for Post (03.311.059) to connect the wire post to the Schanz screw. Do not use the Clamping Bolt, cannulated, for Schanz Screws, for Rings (03.311.058). Take care to keep the wire bolt head aligned, to prevent bending the wire. If it is determined that a wire must be removed because of sub-optimal placement, the recom- mended technique is to cut wire inside of ring and remove by pulling away from bone to re- duce the chance of introducing debris into soft tissue. Pre-drilling for self-drilling screws is recom- mended for dense or thick cortical bone to avoid bone necrosis. Consider cooling the drill with saline. If counter-torque is not provided the force of the Torque Wrench, 10 Nm could damage the strut. If using a bridging plate to close a 5/8 rings, do not tension any wires until after the 5/8 ring and bridging plate will no longer fit. It is important to cut the wires inside of ring, close to the skin before pulling through bone to reduce the chance of debris being introduced to the patient. Do not pull the stopper on the reduction wire through bone. Pull on the side with the spiral markings. If using the Quick Adjust struts, you must use the ID Bands to prevent inadvertent unlocking of the Quick Adjust locking collar. Do not use the MAXFRAME hardware with any software program other than MAXFRAME 3D Software as it could result	 MR Conditional Non-clinical testing has demonstrated that the DePuy Synthes MAXFRAME is MR Conditional according to the ter- minology specified in ASTM F2503-08, Standard Practice for Marking Medical Devices and Other Items for Safety in the Magnetic Resonance Environment. A patient with this device can be safely scanned in an MR system meeting the follow- ing conditionss: Static magnetic field of 1.5 T or 3.0 T Maximum spatial field gradient of 2000 gauss/cm (20 T/m) Maximum MR system reported, whole body averaged specific absorption rate (SAR) of 2 W/kg (Normal Operating Mode) or 4 W/kg (First Level Controlled Mode). Precautions: All components of the MAXFRAME construct must remain outside of the bore of the MR system. All components of the MAXFRAME construct must be identified as MR Conditional prior to entering the MR environment. Warning: Do not place any radio frequency (RF) transmit coils over the external fixation frame. Under the scan conditions defined above, the DePuy Synthes MAXFRAME is expected to produce a maximum temperature rise of less than 6 °C after 15 minutes of continuous scan- ning. 			

Indications	Contraindications	Warnings and Precautions	MR Information
The Distraction Osteogenesis Indications The Distraction Osteogenesis Ring System is indicated for fracture fixation (open and closed); pseudoarthrosis or nonunions of long bones, limb lengthening by epiphy- seal or metaphyseal distrac- tion, correction of bony or soft tissue deformities, and correction of segmental bony or soft tissue defects.		 Warnings and Precautions Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. Wire sites and pin sites should be cared for meticulously to avoid wire-tract and pin-tract infection. Wires and Scharz screws may be surrounded with antiseptic coated foam spong- es in an effort to avoid infection. A wire and pin-site care procedure should be reviewed with the patient. To minimize the risk of pin track infection the following points should be observed: Placement of Scharz screws taking anatomy into consideration (ligaments, nerves, arteries). Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. Release of skin tension at soft tissue entry point of implant. 	MR Information

Large Distractor – Tibia						
Indications	Contraindications	Warnings and Precautions	MR Information			
There are no specific indica- tions for the Large Distrac- tor – Tibia. Refer to the in- tended use section of this IFU for the device intended use.	There are no spe- cific Contraindica- tions for the Large Distractor – Tibia.	 Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin. Handle devices with care and dispose worn bone cutting instruments in an approved sharps container. The tip of the Schanz screw should be embedded in the far cortex to effectively resist cantilever forces and to provide sufficient stability. Only when bones are osteoporotic, the Schanz screw has to be screwed a bit further into the distant cortical bone, and it may even slightly penetrate through it since this can increase anchoring stability. Implant sites should be meticulously cared to avoid pin-tract infection. Schanz screws may be surrounded with antiseptic coated foam sponges in an effort to avoid infection. An implantsite care procedure should be reviewed with the patient. To minimize the risk of pin track infection the following points should be observed: a. Placement of Schanz screws taking anatomy into consideration (ligaments, nerves, arteries). b. Slow insertion and/or cooling, particularly in dense, hard bone to avoid heat necrosis. c. Release of skin tension at soft tissue entry point of implant. The treating physician should make patient specific clinical judgment and decision to use External Fixation System in patients with the following conditions: Patients who for social and physical reasons are not suitable for an external fixator. Agitation. 	The DePuy Synthes "Large Distractor – Tibia" has not been evaluated for safety and compatibility in the MR environ- ment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the "Large Distractor – Tibia" in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.			

CE 0123



Synthes GmbH Eimattstrasse 3 4436 Oberdorf Switzerland Tel: +41 61 965 61 11 www.jnjmedicaldevices.com