

**Mayıs / May 2009**





















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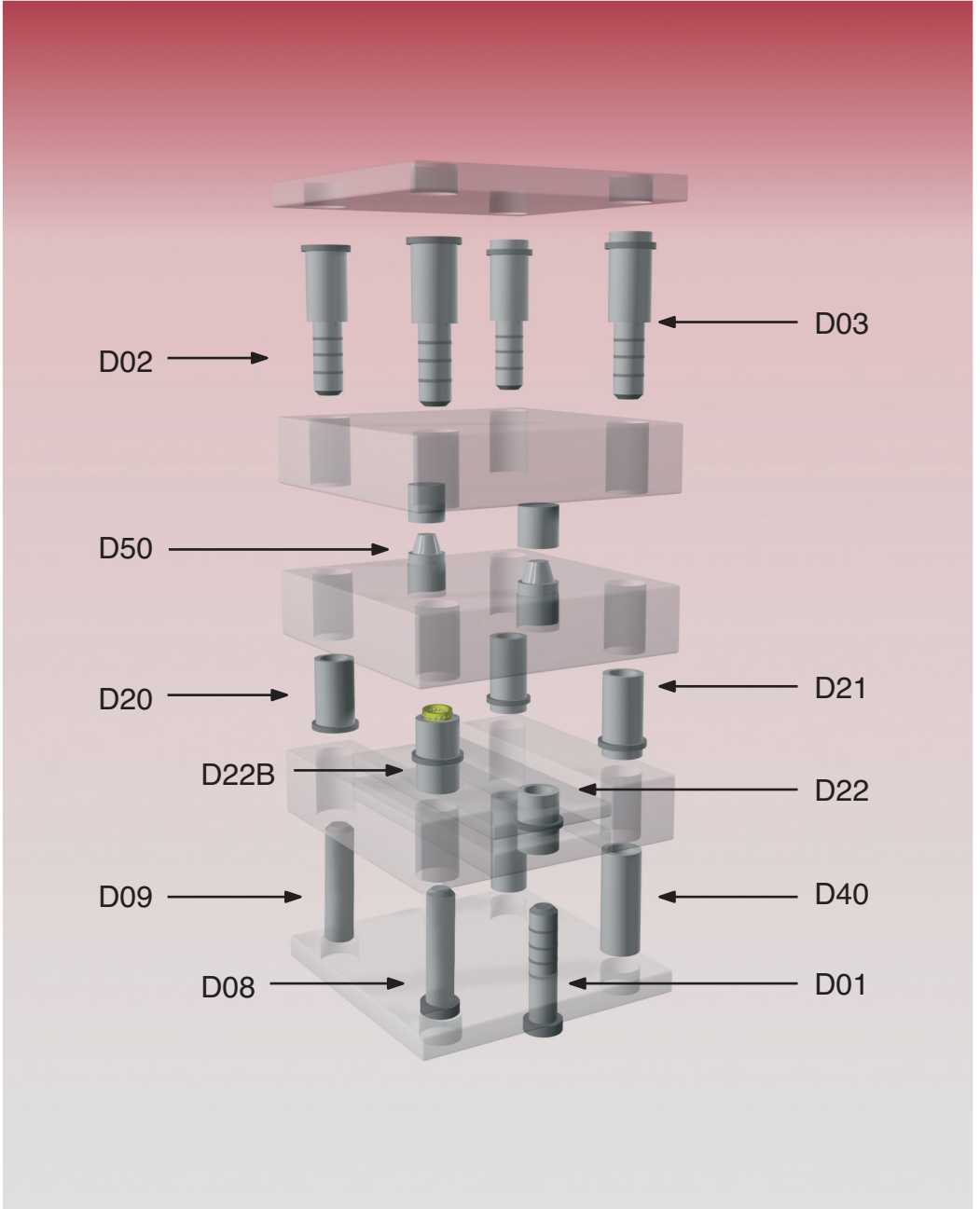
	<b>D02</b> Kademeli Kolon Guide Pillar		<b>D22B</b> Bilyalı Burç Guide Bush with Ball Cage		<b>D60</b> Bilyalı Kafes Ball Cage
	<b>2-11</b>		<b>35</b>		<b>48-50</b>
	<b>D20</b> Burç Guide Bush		<b>D50</b> Konik Kilitleme Locating Unit		<b>D60.01</b> Bilyalı Kafes Tutucusu Helical Spring for Ball Cage Retention
	<b>12-13</b>		<b>36</b>		<b>51</b>
	<b>D03</b> Kuyruklu Kolon Tailed Guide Pillar		<b>D00</b> Kolon Guide Pillar		<b>D30.01</b> Grafitli Burç Oilless Guide Bush
	<b>14-21</b>		<b>38-39</b>		<b>52</b>
	<b>D21</b> Kuyruklu Burç Tailed Guide Bush		<b>D05</b> Kolon Guide Pillar		<b>D30.02</b> Grafitli Burç Oilless Guide Bush
	<b>22-23</b>		<b>40-41</b>		<b>53</b>
	<b>D40</b> Tespit Burcu Centring Steves		<b>D23</b> Burç Guide Bush		<b>D12</b> Kolon Guide Pillar AFNOR
	<b>24-25</b>		<b>42</b>		<b>54</b>
	<b>D01</b> Kolon Guide Pillar		<b>D24</b> Burç Guide Bush		<b>D12.01</b> Kolon Tutucu Flans Clamping Flange AFNOR
	<b>26-28</b>		<b>43</b>		<b>55</b>
	<b>D22</b> Flanlı Burç Middle Flanged Bush		<b>D25</b> Bronzlu Burç Guide Bush with Bronze		<b>D12.02</b> Tutucu Halka Retaining Ring AFNOR
	<b>29</b>		<b>44</b>		<b>56</b>
	<b>D01D</b> Kolon Guide Pillar		<b>D26</b> Bronzlu Burç Guide Bush with Bronze		<b>D30.03</b> Grafitli Burç Oilless Guide Bush AFNOR
	<b>30-32</b>		<b>45</b>		<b>57</b>
	<b>D08</b> Kolon Guide Pillar		<b>D27</b> Burç Guide Bush		<b>D30.03.01</b> Burç Tutucu Flans Retaining Flange AFNOR
	<b>33</b>		<b>46</b>		<b>58</b>
	<b>D09</b> Kolon Guide Pillar		<b>D28</b> Burç Guide Bush		<b>D32</b> Sinterli Burç Guide Bush with Sintered
	<b>34</b>		<b>47</b>		<b>59</b>

	<b>D33</b> Sinterli Burç Guide Bush with Sintered	<b>60</b>		<b>D70.031</b> Çelik Kaymalı Döküm Set Guide Bearing Set with Steel	<b>70</b>		<b>D80.02</b> Grafiteli Sürtünme Plakası Wear Plate With Graphite Insert	<b>80</b>
	<b>D10</b> Kolon Guide Pillar	<b>61</b>		<b>D70.041</b> Bilyalı Döküm Set Guide Bearing Set with Ball Cage	<b>71</b>		<b>D80.03</b> Grafiteli Sürtünme Plakası Wear Plate With Graphite Insert	<b>81-84</b>
	<b>D70.01</b> Döküm Blok Guide Bearing	<b>62</b>		<b>D70.051</b> Grafiteli Döküm Set Guide Bearing Set Non-Lubricant	<b>72</b>		<b>D88</b> Düz Kam Horizontal Slide Cam Unit	<b>85</b>
	<b>D70.02</b> Bronzlu Döküm Blok Guide Bearing with Bronze	<b>63</b>		<b>D11</b> Kolon Guide Pillar	<b>73</b>		<b>D90</b> Bağlama Pabucu Pillar and Bush Clamp	<b>86</b>
	<b>D70.03</b> Çelik Kaymalı Döküm Blok Guide Bearing with Steel	<b>64</b>		<b>D71.02</b> Bronzlu Döküm Blok Guide Bearing with Bronze	<b>74</b>	Teknik Bilgiler	<b>87-89</b>	
	<b>D70.04</b> Bilyalı Döküm Blok Guide Bearing with Ball Cage	<b>65</b>		<b>D71.05</b> Grafiteli Döküm Blok Guide Bearing Non-Lubricant	<b>75</b>			
	<b>D70.05</b> Grafiteli Döküm Blok Guide Bearing Non-Lubricant	<b>66</b>		<b>D71.10</b> Kolon Sabitleme Bloğu Pillar Bearing	<b>76</b>			
	<b>D70.10</b> Kolon Sabitleme Bloğu Pillar Bearing	<b>67</b>		<b>D71.021</b> Bronzlu Döküm Set Guide Bearing Set with Bronze	<b>77</b>			
	<b>D70.011</b> Döküm Set Guide Bearing Set	<b>68</b>		<b>D71.051</b> Grafiteli Döküm Set Guide Bearing Set Non-Lubricant	<b>78</b>			
	<b>D70.021</b> Bronzlu Döküm Set Guide Bearing Set with Bronze	<b>69</b>		<b>D80.01</b> Grafiteli Sürtünme Plakası Wear Plate With Graphite Insert	<b>79</b>			



# Enjeksiyon Kalıbı Ürünleri

Injection Mould Components



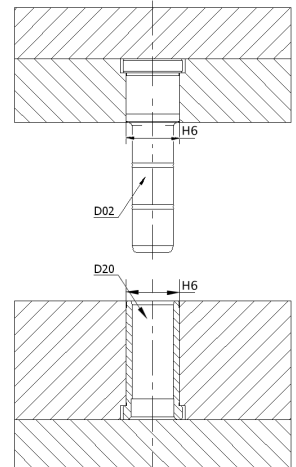
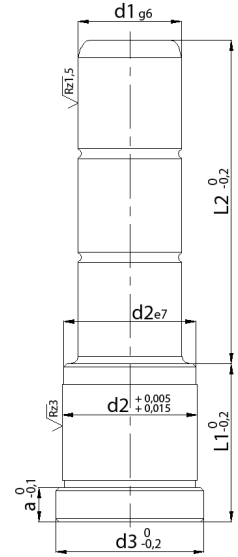
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - B



Sipariş Kodu	Ø d1	L1	L2	d2	d3	a
D02_122626	12	26	26	16	19	4
36			36			
46			46			
56			56			
D02_123626	12	36	26	16	19	4
36			36			
46			46			
56			56			
D02_124626	12	46	26	16	19	4
36			36			
46			46			
56			56			
66			66			
D02_142626	14	26	26	20	25	6
36			36			
46			46			
56			56			
66			66			
76			76			
D02_143626	14	36	26	20	25	6
36			36			
46			46			
56			56			
66			66			
86			86			
D02_144626	14	46	26	20	25	6
36			36			
46			46			
56			56			
76			76			
96			96			
D02_145626	14	56	26	20	25	6
36			36			
46			46			
66			66			
86			86			
106			106			
D02_162626	16	26	26	24	28	6
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46			46			
56			56			
76			76			



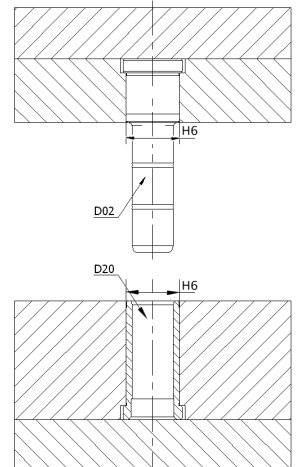
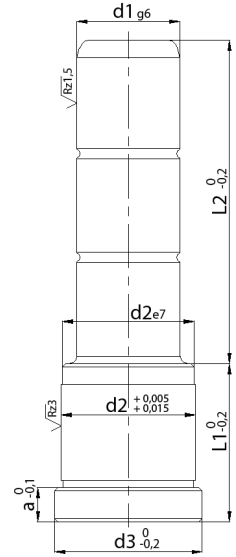
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - B



↓	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_162696	16	26	96	24	28	6
D02_163626	16	36	26	24	28	6
36			36			
46			46			
56			56			
66			66			
86			86			
106			106			
D02_164626	16	46	26	24	28	6
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
D02_165626	16	56	26	24	28	6
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
D02_166626	16	66	26	24	28	6
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
D02_167626	16	76	26	24	28	6
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
D02_168626	16	86	26	24	28	6



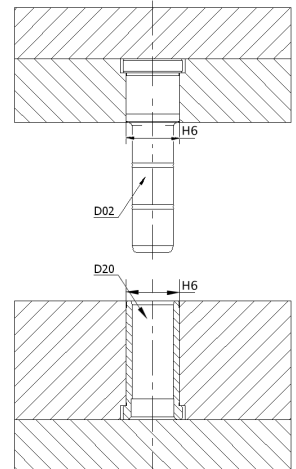
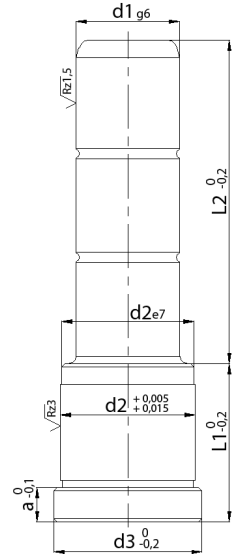
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_168636	16	86	36	24	28	6
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_182626	18	26	26	26	31	6
36			36			
46			46			
56			56			
66			66			
86			86			
D02_183626	18	36	26	26	31	6
36			36			
46			46			
56			56			
66			66			
86			86			
106			106			
D02_184626	18	46	26	26	31	6
36			36			
46			46			
56			56			
66			66			
86			86			
106			106			
126			126			
D02_185626	18	56	26	26	31	6
36			36			
46			46			
56			56			
66			66			
86			86			
106			106			
126			126			
D02_186626	18	66	26	26	31	6
36			36			
56			56			
76			76			
96			96			
116			116			





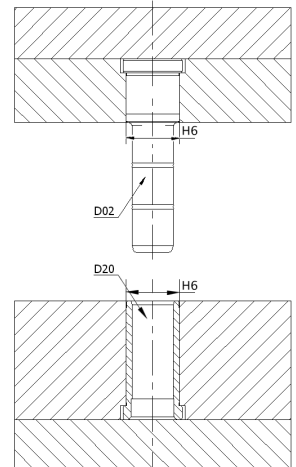
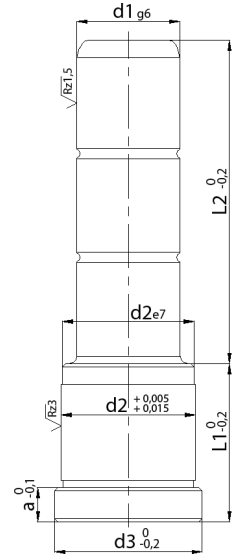
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Kademeli Kolon / Guide Pillar

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 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_187626	18	76	26	26	31	6
46			46			
66			66			
86			86			
106			106			
126			126			
D02_188626	18	86	26	26	31	6
46			46			
66			66			
86			86			
106			106			
126			126			
D02_202626	20	26	26	28	32	6
36			36			
46			46			
56			56			
66			66			
86			86			
D02_203626	20	36	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
D02_204626	20	46	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
D02_205626	20	56	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_206626	20	66	26	28	32	6



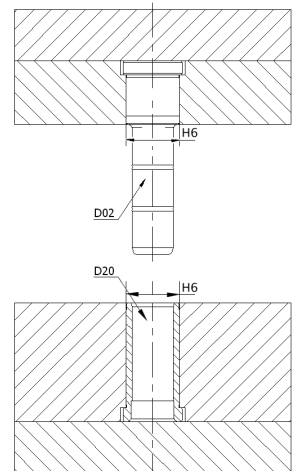
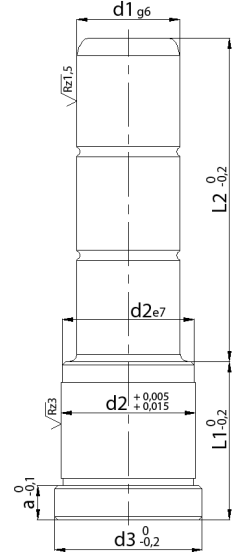
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
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 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_206636	20	66	36	28	32	6
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_207626	20	76	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
126			126			
D02_208626	20	86	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
126			126			
D02_209626	20	96	26	28	32	6
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
126			126			
D02_252626	25	26	26	34	38	8
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
D02_253626	25	36	26	34	38	8



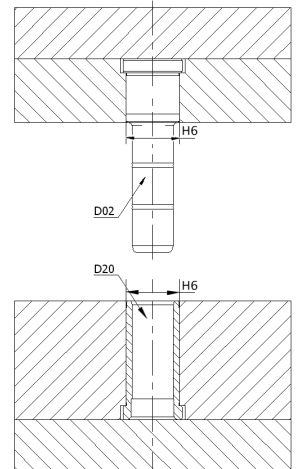
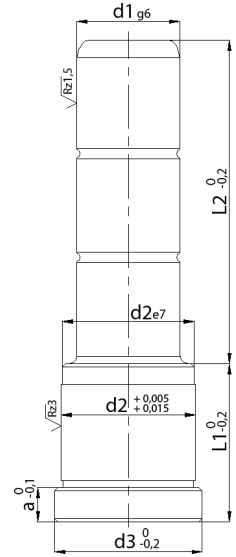
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 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	<b>d1</b>	<b>L1</b>	<b>L2</b>	<b>d2</b>	<b>d3</b>	<b>a</b>
D02_253636	25	36	36	34	38	8
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
D02_254626	25	46	26	34	38	8
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_255626	25	56	26	34	38	8
36			36			
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_256626	25	66	26	34	38	8
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
126			126			
D02_257626	25	76	26	34	38	8
36			36			
46			46			
56			56			
66			66			
76			76			
86			86			
106			106			
126			126			
D02_258636	25	86	36	34	38	8



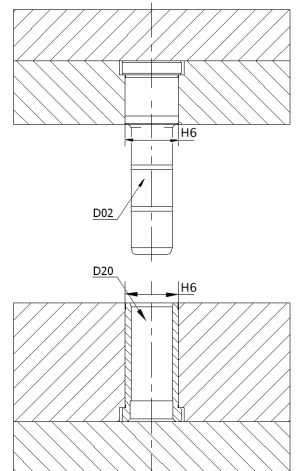
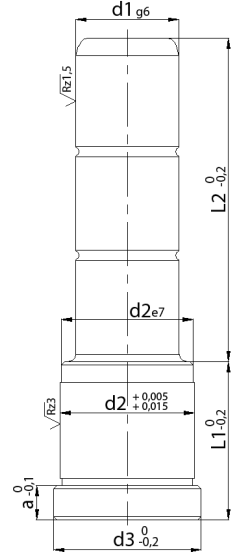
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Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_258646	25	86	46	34	38	8
56			56			
66			66			
76			76			
86			86			
96			96			
116			116			
136			136			
D02_259636	25	96	36	34	38	8
46			46			
56			56			
66			66			
76			76			
86			86			
96			96			
116			116			
136			136			
D02_2510646	25	106	46	34	38	8
56			56			
66			66			
76			76			
86			86			
96			96			
116			116			
136			136			
D02_303636	30	36	36	39	43	10
46			46			
56			56			
66			66			
86			86			
106			106			
D02_304636	30	46	36	39	43	10
46			46			
56			56			
66			66			
76			76			
96			96			
116			116			
D02_305636	30	56	36	39	43	10
46			46			
56			56			
66			66			



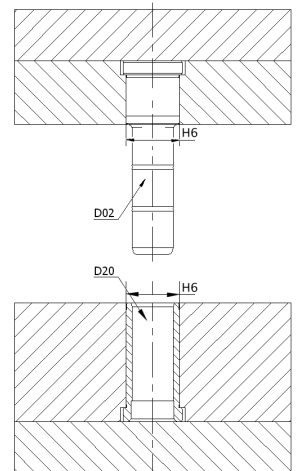
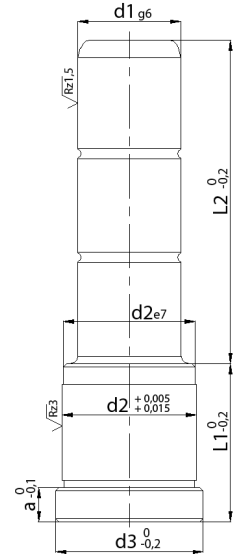
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Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_305676	30	56	76	39	43	10
86			86			
106			106			
126			126			
D02_306636	30	66	36	39	43	10
46			46			
56			56			
66			66			
76			76			
86			86			
96			96			
116			116			
136			136			
D02_307636	30	76	36	39	43	10
46			46			
56			56			
76			76			
96			96			
116			116			
136			136			
D02_308636	30	86	36	39	43	10
46			46			
66			66			
86			86			
106			106			
126			126			
146			146			
D02_309646	30	96	46	39	43	10
66			66			
86			86			
106			106			
126			126			
146			146			
D02_3010656	30	106	56	39	43	10
76			76			
96			96			
116			116			
136			136			
D02_3011656	30	116	56	39	43	10
76			76			
96			96			
116			116			



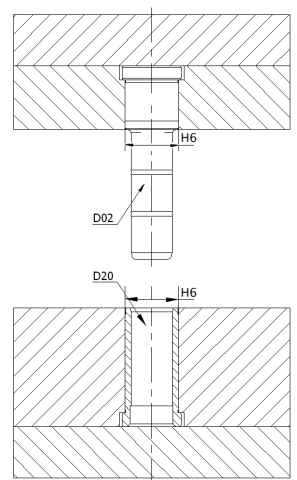
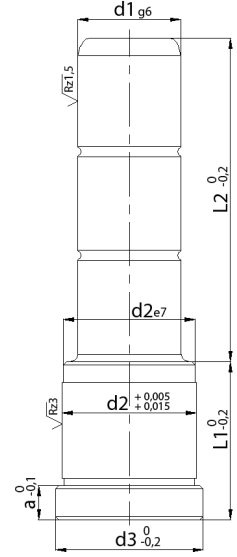
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_30116136	30	116	136	39	43	10
D02_405656	40	56	56	54	58	10
86			86			
106			106			
126			126			
156			156			
186			186			
D02_406666	40	66	66	54	58	10
96			96			
116			116			
136			136			
166			166			
196			196			
D02_407676	40	76	76	54	58	10
106			106			
126			126			
146			146			
166			166			
196			196			
D02_408686	40	86	86	54	58	10
126			126			
146			146			
176			176			
206			206			
226			226			
D02_409696	40	96	96	54	58	10
136			136			
156			156			
186			186			
216			216			
236			236			
D02_40106106	40	106	106	54	58	10
126			126			
156			156			
186			186			
226			226			
246			246			
D02_40116116	40	116	116	54	58	10
136			136			
166			166			
196			196			



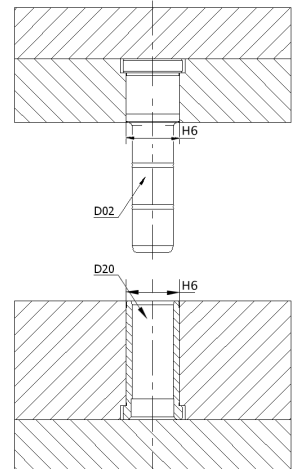
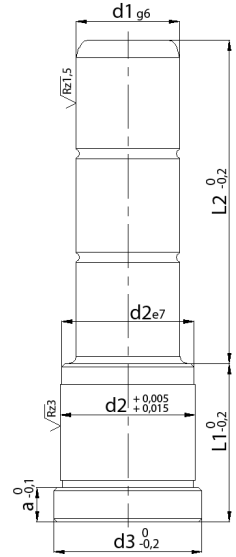
# D02

Kademeli Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Alloucnce + Induction)  
 ≈DIN 16761 - B



	Ø					
Sipariş Kodu	d1	L1	L2	d2	d3	a
D02_40116236	40	116	236	54	58	10
256			256			
D02_40126126	40	126	126	54	58	10
166			166			
196			196			
236			236			
266			266			
D02_40136136	40	136	136	54	58	10
196			196			
226			226			
266			266			



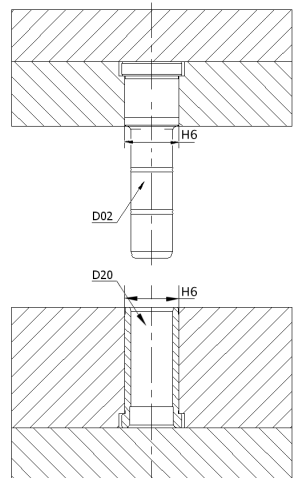
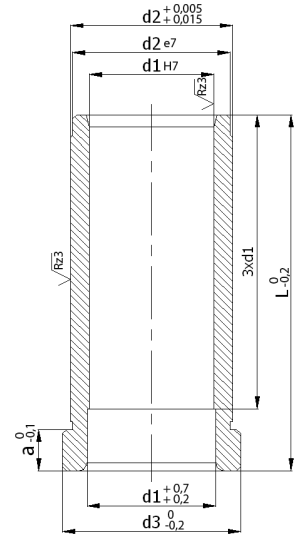
# D20

Burç / Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16716 - E



Sipariş Kodu	Ø d1	L	d2	d3	a
D20_1226	12	26	16	19	4
36		36			
46		46			
56		56			
66		66			
D20_1426	14	26	20	25	6
36		36			
46		46			
56		56			
66		66			
76		76			
D20_1626	16	26	24	28	6
36		36			
46		46			
56		56			
66		66			
76		76			
86		86			
D20_1826	18	26	26	31	6
36		36			
46		46			
56		56			
66		66			
76		76			
86		86			
D20_2026	20	26	28	32	6
36		36			
46		46			
56		56			
66		66			
76		76			
86		86			
96		96			
D20_2526	25	26	34	38	8
36		36			
46		46			
56		56			
66		66			
76		76			
86		86			
96		96			
106		106			





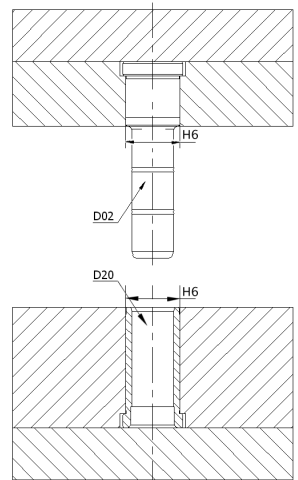
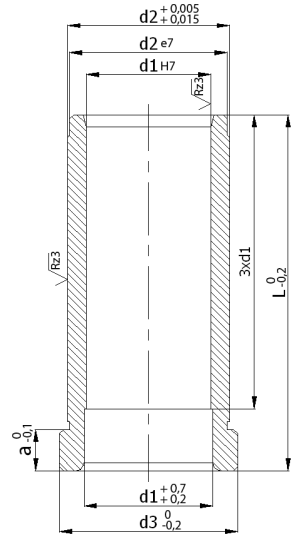
# D20

Burç / Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16716 - E



Sipariş Kodu	Ø d1	L	d2	d3	a
D20_3036	30	36	39	43	10
46					
56					
66					
76					
86					
96					
106					
116					
D20_4046		40			
56					
66					
76					
86					
96					
106					
116					
126					
136					
146					



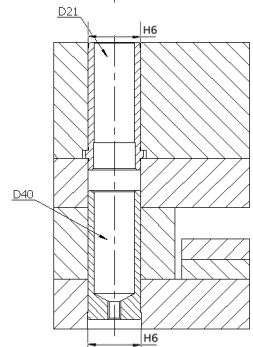
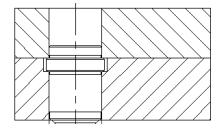
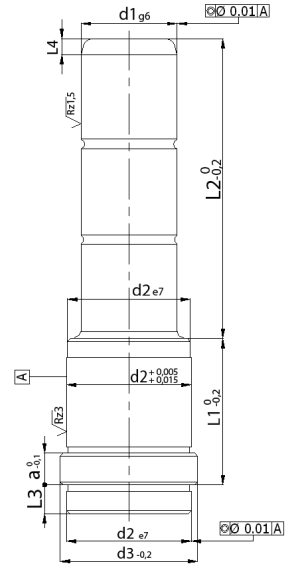
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_141735	14	D03_151735	15	17	35	9	7	20	25	6
55		55			55					
75		75			75					
95		95			95					
D03_142230	14	D03_152230	15	22	30	9	7	20	25	6
50		50			50					
70		70			70					
90		90			90					
110		110			110					
125		125			125					
150		150			150					
D03_142730	14	D03_152730	15	27	30	9	7	20	25	6
45		45			45					
65		65			65					
85		85			85					
105		105			105					
125		125			125					
145		145			145					
165		165			165					
D03_143635	14	D03_153635	15	36	35	9	7	20	25	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
125		125			125					
145		145			145					
155		155			155					
D03_144635	14	D03_154635	15	46	35	9	7	20	25	6
45		45			45					
65		65			65					
85		85			85					
105		105			105					
125		125			125					
145		145			145					
D03_145635	14	D03_155635	15	56	35	9	7	20	25	6
55		55			55					
75		75			75					
95		95			95					
135		135			135					
D03_146655	14	D03_156655	15	66	55	9	7	20	25	6
65		65			65					
85		85			85					



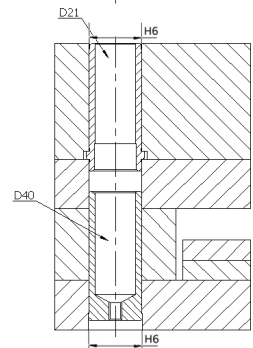
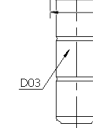
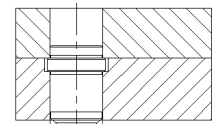
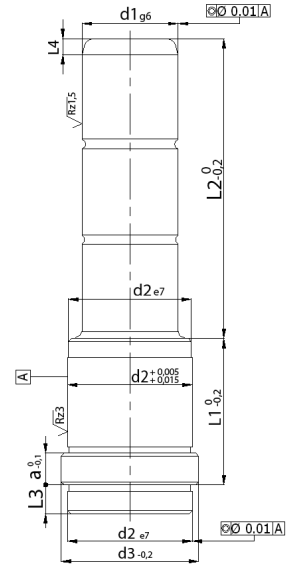
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_146695	14	D03_156695	15	66	95	9	7	20	25	6
105		105			105					
125		125			125					
D03_147635	14	D03_157635	15	76	35	9	7	20	25	6
55		55			55					
75		75			75					
95		95			95					
125		125			125					
D03_148655	14	D03_158655	15	86	55	9	7	20	25	6
75		75			75					
95		95			95					
D03_149655	14	D03_159655	15	96	55	9	7	20	25	6
75		75			75					
95		95			95					
D03_1411675	14	D03_1511675	15	116	75	9	7	20	25	6
D03_181735	18	D03_201735	20	17	35	9	7	26	31	6
55		55			55					
75		75			75					
120		120			120					
D03_182235	18	D03_202235	20	22	35	9	7	26	31	6
45		45			45					
65		65			65					
85		85			85					
95		95			95					
115		115			115					
D03_182735	18	D03_202735	20	27	35	9	7	26	31	6
45		45			45					
65		65			65					
85		85			85					
105		105			105					
125		125			125					
165		165			165					
225		225			225					
245		245			245					
D03_183635	18	D03_203635	20	36	35	9	7	26	31	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
135		135			135					
165		165			165					
225		225			225					



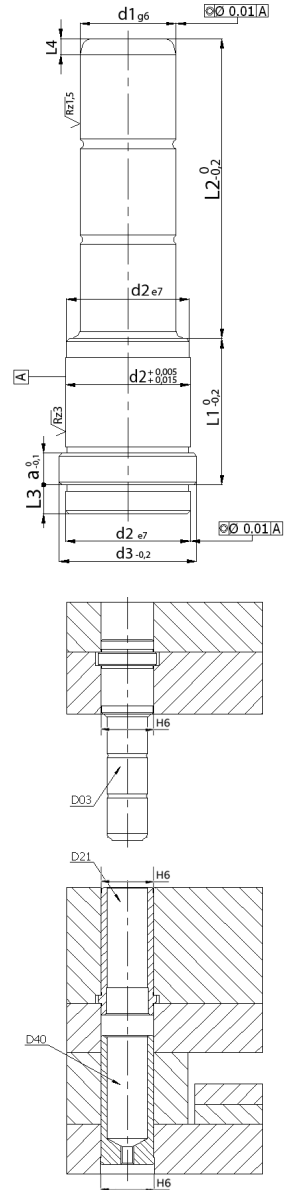
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_1836255	18	D03_2036255	20	36	255	9	7	26	31	6
D03_184635	18	D03_204635	20	46	35	9	7	26	31	6
45		45		45						
65		65		65						
85		85		85						
105		105		105						
135		135		135						
165		165		165						
245		245		245						
D03_185635	18	D03_205635	20	56	35	9	7	26	31	6
55		55		55						
75		75		75						
95		95		95						
115		115		115						
135		135		135						
155		155		155						
D03_186635	18	D03_206635	20	66	35	9	7	26	31	6
55		55		55						
75		75		75						
95		95		95						
115		115		115						
135		135		135						
145		145		145						
D03_187635	18	D03_207635	20	76	35	9	7	26	31	6
55		55		55						
75		75		75						
95		95		95						
115		115		115						
135		135		135						
D03_188655	18	D03_208655	20	86	55	9	7	26	31	6
75		75		75						
95		95		95						
125		125		125						
135		135		135						
D03_189655	18	D03_209655	20	96	55	9	7	26	31	6
75		75		75						
95		95		95						
D03_1811675	18	D03_2011675	20	116	75	9	7	26	31	6
115		115		115						
D03_18136135	18	D03_20136135	20	136	135	9	7	26	31	6
D03_221735	22	D03_241735	24	17	35	9	7	30	35	6
55		55		55						



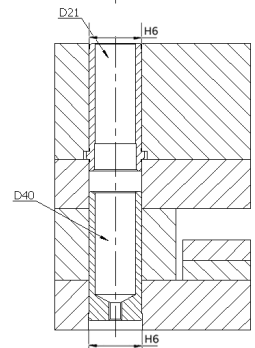
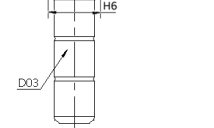
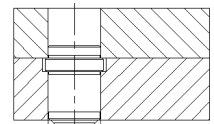
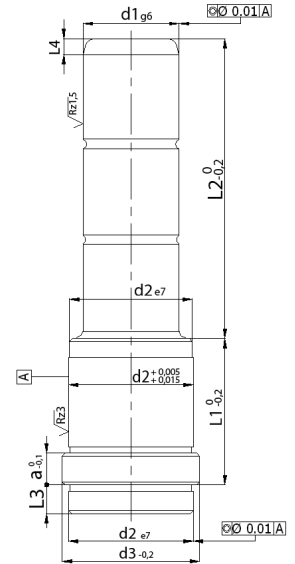
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_221775	22	D03_241775	24	17	75	9	7	30	35	6
D03_222235	22	D03_242235	24	22	35	9	7	30	35	6
55		55		55						
75		75		75						
95		95		95						
105		105		105						
130		130		130						
D03_222735	22	D03_242735	24	27	35	9	7	30	35	6
45		45		45						
65		65		65						
85		85		85						
105		105		105						
125		125		125						
165		165		165						
205		205		205						
245		245		245						
D03_223635	22	D03_243635	24	36	35	9	7	30	35	6
55		55		55						
75		75		75						
95		95		95						
115		115		115						
135		135		135						
165		165		165						
205		205		205						
245		245		245						
285		285		285						
D03_224635	22	D03_244635	24	46	35	9	7	30	35	6
45		45		45						
65		65		65						
85		85		85						
105		105		105						
125		125		125						
165		165		165						
205		205		205						
D03_225635	22	D03_245635	24	56	35	9	7	30	35	6
55		55		55						
75		75		75						
95		95		95						
115		115		115						
135		135		135						
165		165		165						
205		205		205						



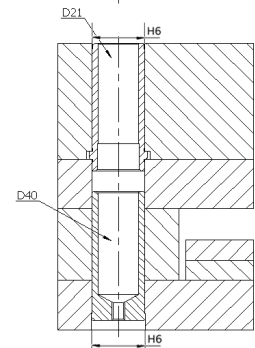
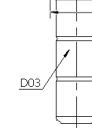
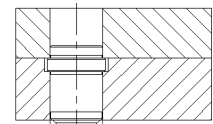
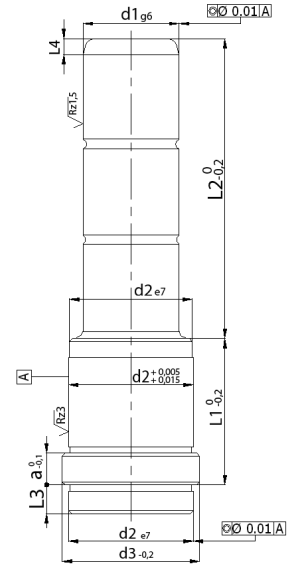
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_226635	22	D03_246635	24	66	35	9	7	30	35	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
D03_227635	22	D03_247635	24	76	55	9	7	30	35	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
145		145			145					
D03_228655	22	D03_248655	24	86	55	9	7	30	35	6
75		75			75					
95		95			95					
125		125			125					
135		135			135					
D03_229655	22	D03_249655	24	96	55	9	7	30	35	6
75		75			75					
95		95			95					
125		125			125					
D03_2210655	22	D03_2410655	24	106	55	9	7	30	35	6
75		75			75					
95		95			95					
115		115			115					
D03_2211675	22	D03_2411675	24	116	75	9	7	30	35	6
115		115			115					
155		155			155					
D03_2213695	22	D03_2413695	24	136	95	9	7	30	35	6
135		135			135					
D03_302735	30	D03_322735	32	27	35	9	7	42	47	6
45		45			45					
65		65			65					
85		85			85					
105		105			105					
125		125			125					
145		145			145					
165		165			165					
185		185			185					
245		245			245					
285		285			285					



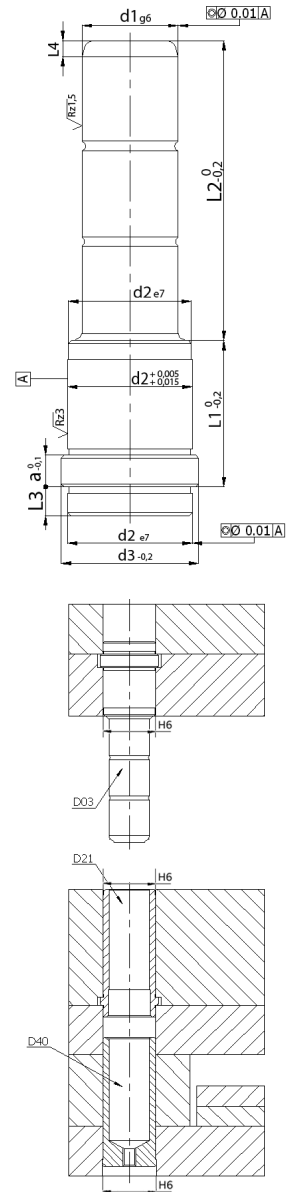
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_303635	30	D03_323635	32	36	35	9	7	42	47	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
245		245			245					
285		285			285					
D03_304645	30	D03_324645	32	46	45	9	7	42	47	6
65		65			65					
85		85			85					
105		105			105					
125		125			125					
145		145			145					
165		165			165					
245		245			245					
285		285			285					
D03_305645	30	D03_325645	32	56	45	9	7	42	47	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
175		175			175					
245		245			245					
295		295			295					
D03_306645	30	D03_326645	32	66	45	9	7	42	47	6
55		55			55					
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
175		175			175					
245		245			245					
295		295			295					
D03_307655	30	D03_327655	32	76	55	9	7	42	47	6
75		75			75					
95		95			95					
115		115			115					



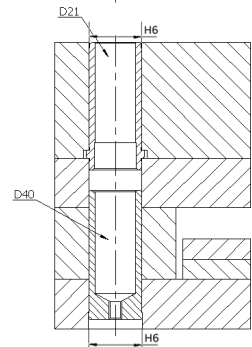
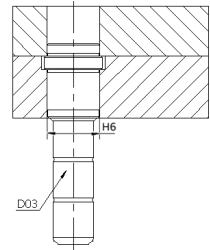
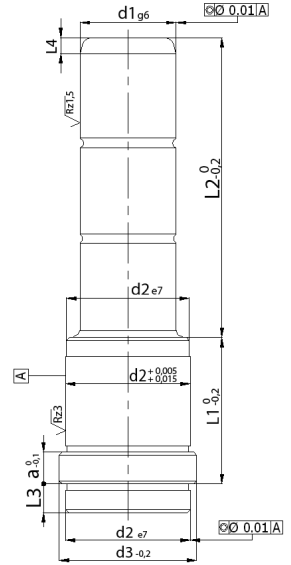
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_3076135	30	D03_3276135	32	76	135	9	7	42	47	6
155		155			155					
225		225			225					
D03_308655	30	D03_328655	32	86	55	9	7	42	47	6
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
225		225			225					
D03_309655	30	D03_329655	32	96	55	9	7	42	47	6
75		75			75					
95		95			95					
115		115			115					
135		135			135					
155		155			155					
205		205			205					
D03_3010675	30	D03_3210675	32	106	75	9	7	42	47	6
95		95			95					
115		115			115					
125		125			125					
145		145			145					
165		165			165					
D03_3011675	30	D03_3211675	32	116	75	9	7	42	47	6
95		95			95					
115		115			115					
135		135			135					
155		155			155					
D03_3013695	30	D03_3213695	32	136	95	9	7	42	47	6
115		115			115					
135		135			135					
155		155			155					
D03_30156115	30	D03_32156115	32	156	115	9	7	42	47	6
155		155			155					
D03_30196155	30	D03_32196155	32	196	155	9	7	42	47	6
195		195			195					
D03_404695	40	D03_424695	42	46	95	12	7	54	60	10
165		165			165					
D03_405675	40	D03_425675	42	56	75	12	7	54	60	10
115		115			115					
155		155			155					
195		195			195					





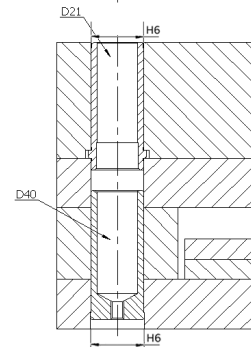
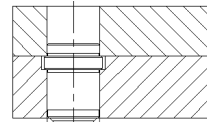
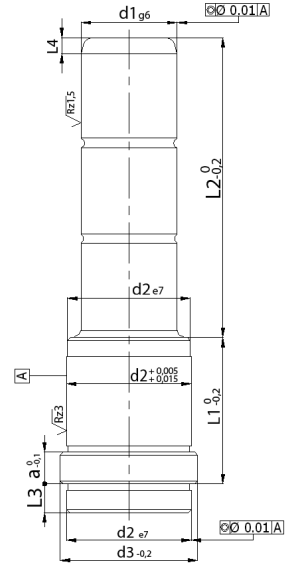
# D03

Kuyruklu Kolon / Tailed Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 16761 - A



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	L3	L4	d2	d3	a
D03_406675	40	D03_426675	42	66	75	12	7	54	60	10
135		135			135					
D03_407675	40	D03_427675	42	76	75	12	7	54	60	10
115		115			115					
175		175			175					
D03_408675	40	D03_428675	42	86	75	12	7	54	60	10
135		135			135					
D03_409675	40	D03_429675	42	96	75	12	7	54	60	10
115		115			115					
155		155			155					
D03_4011695	40	D03_4211695	42	116	95	12	7	54	60	10
135		135			135					
195		195			195					
D03_4013695	40	D03_4213695	42	136	95	12	7	54	60	10
135		135			135					
215		215			215					
D03_40156115	40	D03_42156115	42	156	115	12	7	54	60	10
155		155			155					
215		215			215					
D03_40196155	40	D03_42196155	42	196	155	12	7	54	60	10
195		195			195					
235		235			235					
D03_40246165	40	D03_42246165	42	246	165	12	7	54	60	10
245		245			245					



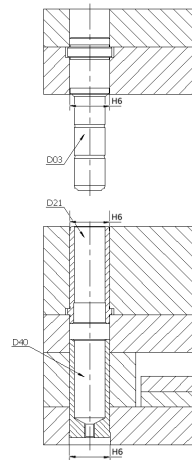
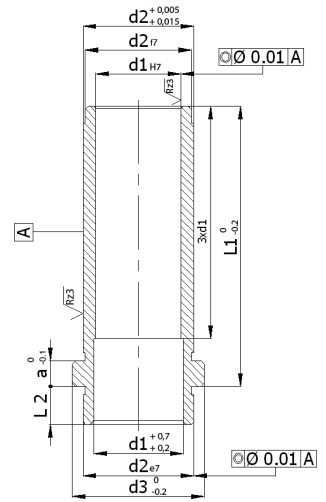
# D21

Kuyruklu Burç / Tailed Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16716 - C



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	d2	d3	a	L2
D21_1417	14	D21_1517	15	17	20	25	6	9
22		22		22				
27		27		27				
36		36		36				
46		46		46				
56		56		56				
66		66		66				
76		76		76				
86		86		86				
96		96		96				
116		116		116				
D21_1817	18	D21_2017	20	17	26	31	6	9
22		22		22				
27		27		27				
36		36		36				
46		46		46				
56		56		56				
66		66		66				
76		76		76				
86		86		86				
96		96		96				
106		106		106				
116		116		116				
136		136		136				
D21_2217	22	D21_2417	24	17	30	35	6	9
22		22		22				
27		27		27				
36		36		36				
46		46		46				
56		56		56				
66		66		66				
76		76		76				
86		86		86				
96		96		96				
106		106		106				
116		116		116				
136		136		136				
156		156		156				
D21_3027	30	D21_3227	32	27	42	47	6	9
36		36		36				
46		46		46				
56		56		56				



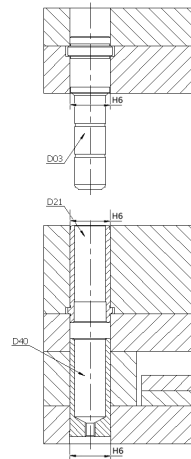
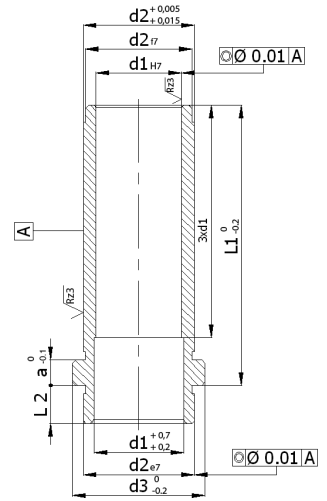
# D21

Kuyruklu Burç / Tailed Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16716 - C



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	d2	d3	a	L2
D21_3066	30	D21_3266	32	66	42	47	6	9
76		76		76				
86		86		86				
96		96		96				
106		106		106				
116		116		116				
126		126		126				
136		136		136				
156		156		156				
196		196		196				
D21_4046	40	D21_4246	42	46	54	60	10	12
56		56		56				
66		66		66				
76		76		76				
86		86		86				
96		96		96				
116		116		116				
136		136		136				
156		156		156				
196		196		196				
246		246		246				



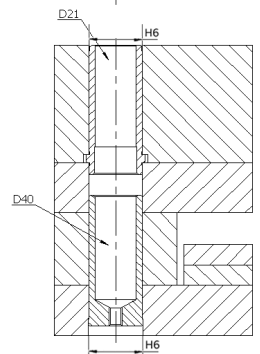
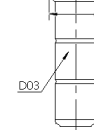
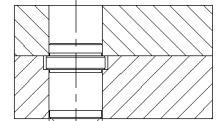
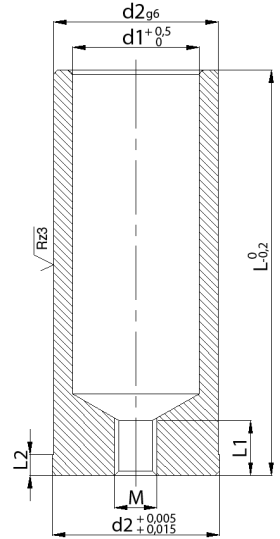
# D40

Tespit Burcu / Centring Sleeves

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16759



Sipariş Kodu	Ø d2	L	d1	M	L1	L2
D40_2030	20	30	16	8	13	2.5
40		40				
60		60				
80		80				
100		100				
120		120				
140		140				
160		160				
D40_2630	26	30	21	10	13	2.5
40		40				
60		60				
80		80				
100		100				
120		120				
140		140				
160		160				
180		180				
D40_3040	30	40	25	12	13	2.5
60		60				
80		80				
100		100				
120		120				
140		140				
160		160				
180		180				
200		200				
240		240				
D40_4240	42	40	33	12	13	4.5
60		60				
80		80				
100		100				
120		120				
140		140				
160		160				
180		180				
200		200				
220		220				
260		260				
300		300				
D40_5460	54	60	43	12	13	4.5
80		80				
120		120				



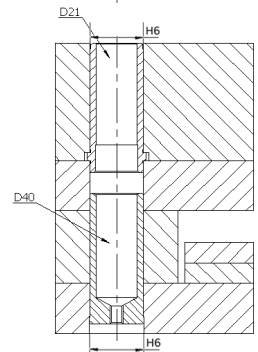
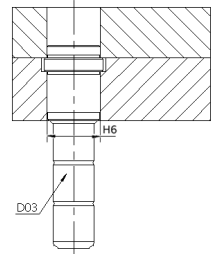
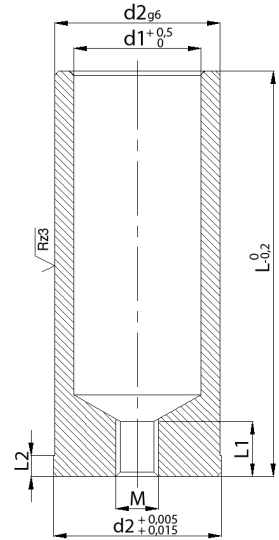
# D40

Tespit Burcu / Centring Sleeves

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN 16759



Sipariş Kodu	d2	L	d1	M	L1	L2
D40_54160	54	160	43	12	13	4.5
200		200				
240		240				
280		280				



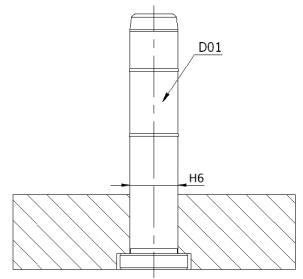
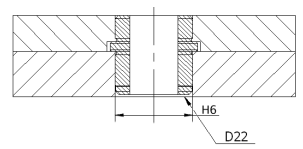
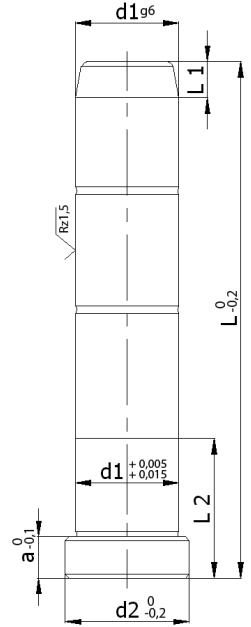
# D01

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)



Sipariş Kodu	Ø	L	L1	L2	d2	a
D01_1040	10	40	4	17	12	3
60		60				
80		80		22		
100		100		27		
120		120				
D01_1240	12	40	7	17	16	6
60		60		22		
80		80		27		
100		100				
120		120		36		
140		140				
160		160				
D01_1460	14	60	7	17	18	8
80		80		22		
100		100		27		
120		120		36		
140		140				
160		160				
180		180		46		
D01_1640	16	40	7	22	20	8
60		60		27		
80		80				
100		100		36		
120		120				
140		140				
160		160		46		
180		180				
200		200		56		
D01_1860	18	60	7	27	22	8
80		80				
100		100		36		
120		120				
140		140				
160		160		46		
180		180				
200		200		56		
240		240				
D01_2060	20	60	7	27	24	8
80		80				
100		100		36		
120		120				
140		140				



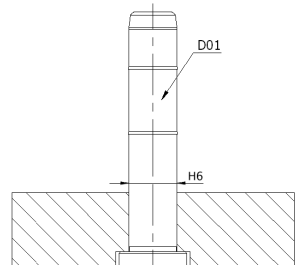
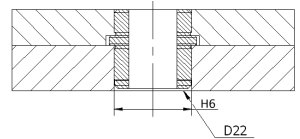
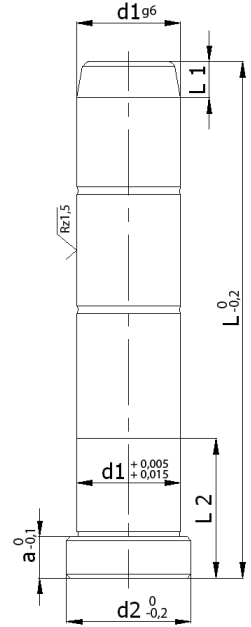
# D01

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)



	Ø						
Sipariş Kodu	d1	L	L1	L2	d2	a	
D01_20160	20	160	7	46	24	8	
180		180					
200		200					
240		240					
D01_2280	22	80	7	36	26	15	
100		100					
120		120					
140		140					
160		160					46
180		180					56
200		200					
220		220					
240		240					66
300		300					
D01_2480	24	80	7	36	28	15	
100		100					
120		120					
140		140					
160		160					46
180		180					56
200		200					
220		220					
240		240					66
300		300					
D01_30100	30	100	7	36	36	15	
120		120					
140		140					
160		160					46
180		180					56
200		200					66
220		220					
240		240					
300		300					76
360		360					
D01_40160	40	160	10	46	48	15	
180		180					
200		200					
220		220					
240		240					
280		280					
300		300					76
320		320					



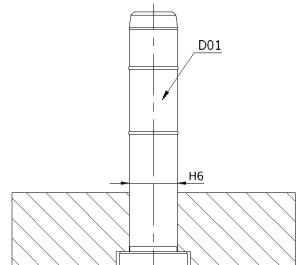
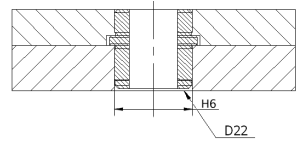
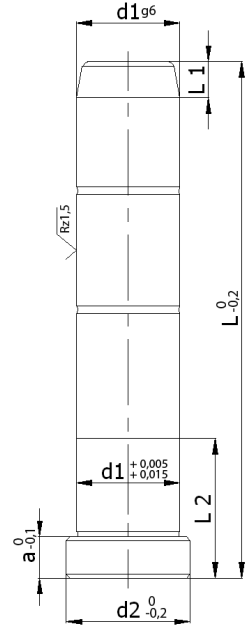
# D01

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø	L	L1	L2	d2	a
D01_40360	40	360	10	76	48	15
D01_50160	50	160	10	56	58	15
200		200				
240		240				
300		300		66		
360		360		76		





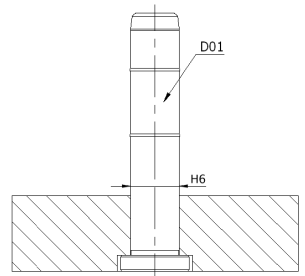
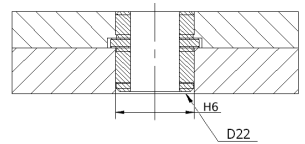
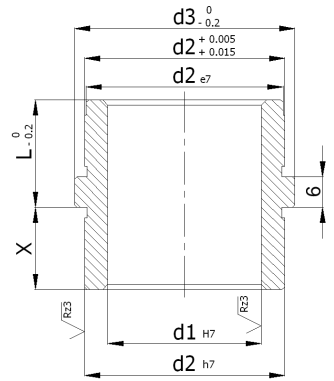
# D22

Flanşlı Burç / Middle Flanged Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)



Sipariş Kodu	d1	L	d2	d3	x
D22_1216	12	16	16	19	12
D22_1416	14	16	20	25	12
D22_1616	16	16	24	28	12
D22_1816	18	16	26	31	12
D22_2016	20	16	28	32	12
D22_2421	24	21	34	38	16
D22_3021	30	21	39	43	16



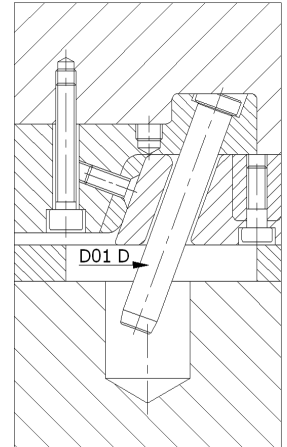
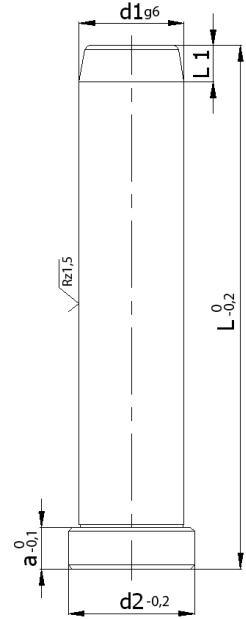
# D01D

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN ISO 8404 - A



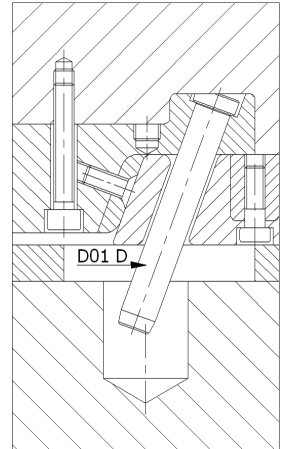
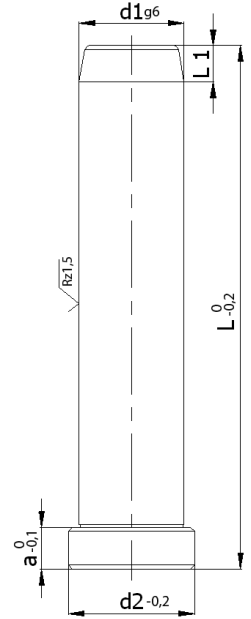
Sipariş Kodu	Ø d1	L	L1	d2	a
D01D_1040	10	40	4	12	3
60		60			
80		80			
100		100			
120		120			
D01D_1240	12	40	7	16	6
60		60			
80		80			
100		100			
120		120			
140		140			
160		160			
D01D_1460	14	60	7	18	8
80		80			
100		100			
120		120			
140		140			
160		160			
180		180			
D01D_1640	16	40	7	20	8
60		60			
80		80			
100		100			
120		120			
140		140			
160		160			
180		180			
200		200			
D01D_1860	18	60	7	22	8
80		80			
100		100			
120		120			
140		140			
160		160			
180		180			
200		200			
240		240			
D01D_2060	20	60	7	24	8
80		80			
100		100			
120		120			
140		140			



# D01D

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN ISO 8404 - A



Sipariş Kodu	Ø d1	L	L1	d2	a
D01D_20160	20	160	7	24	8
180		180			
200		200			
240		240			
D01D_2280	22	80	7	26	15
100		100			
120		120			
140		140			
160		160			
180		180			
200		200			
220		220			
240		240			
300		300			
D01D_2480	24	80	7	28	15
100		100			
120		120			
140		140			
160		160			
180		180			
200		200			
220		220			
240		240			
300		300			
D01D_30100	30	100	7	36	15
120		120			
140		140			
160		160			
180		180			
200		200			
220		220			
240		240			
300		300			
360		360			
D01D_40160	40	160	10	48	15
180		180			
200		200			
220		220			
240		240			
280		280			
300		300			
320		320			

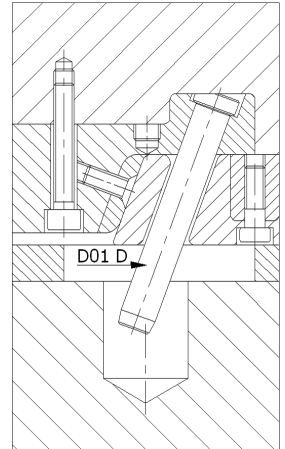
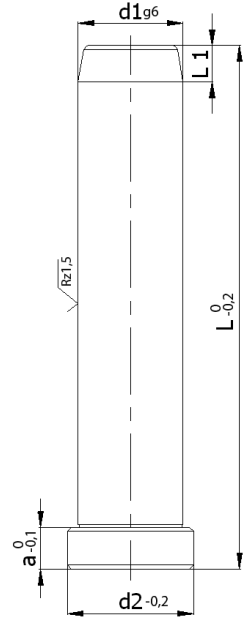
# D01D

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN ISO 8404 - A



Sipariş Kodu	Ø d1	L	L1	d2	a
D01D_40360	40	360	10	48	15
D01D_50160	50	160	10	58	15
200		200			
240		240			
300		300			
360		360			



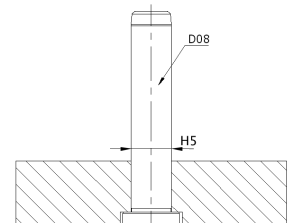
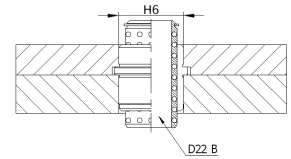
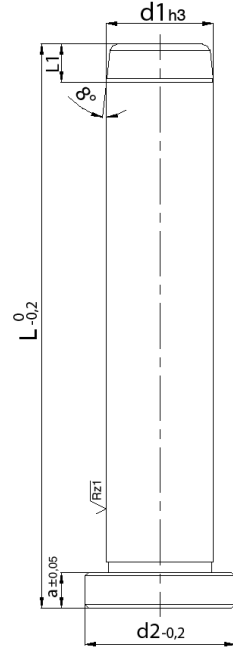
# D08

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)



Sipariş Kodu	$\varnothing$ d1	L	L1	d2	a
D08_1280	12	80	4	16	4
100		100			
120		120			
D08_18120	18	120	7	22	6
140		140			
160		160			
D08_30160	30	160	7	36	6
200		200			
240		240			



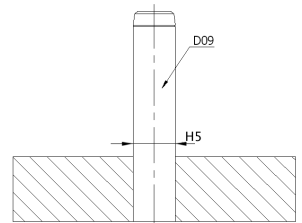
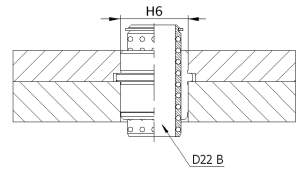
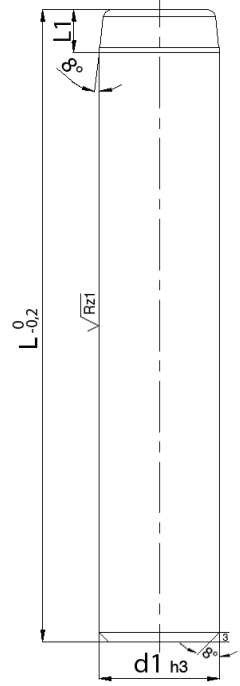
## D09

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN 9825 - 2



Sipariş Kodu	Ø d1	L	L1
D09_12100	12	100	6
125		125	
D09_18125	18	125	6
160		160	
D09_30160	30	160	7
240		240	



# D22B

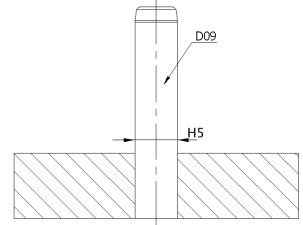
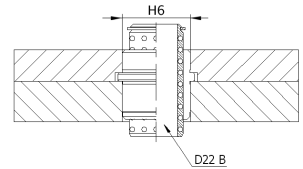
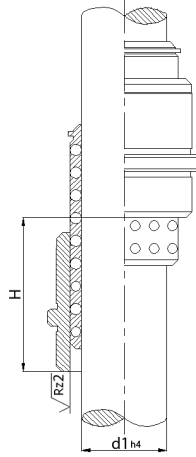
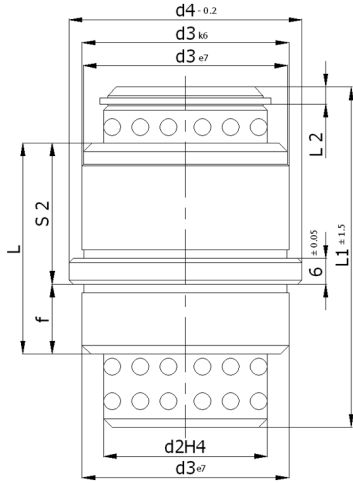
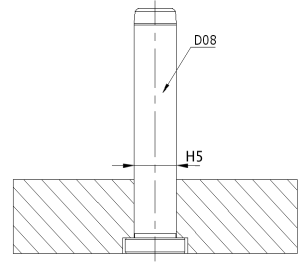
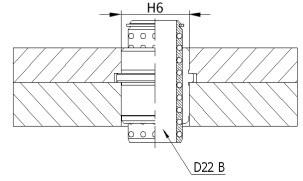
Bilyalı Burç / Guide Bush with Ball Cage

Malzeme - Material : Asil Çelik 1.3505 (100Cr6)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sertleştirme (Hardened)

Malzeme - Material : Ms58  
 Bilya Malzemesi - Ball Material : 1.3505 (100Cr6)



Sipariş Kodu	Ø	d1	L1	Hmax	L2	L	f	d2	d3	d4	S2
D22B_1240	12	40	50	2.1	24	6	16	22	26	18	
56		56	82								
D22B_1845	18	45	44	3	34	11	24	30	35	23	
56		56	66								
71		71	96								
D22B_3056	30	56	32	4.8	54	21	38	46	52	33	
75		75	70								
95		95	110								



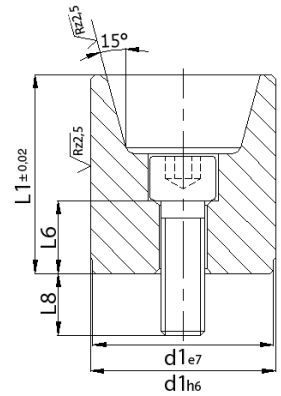
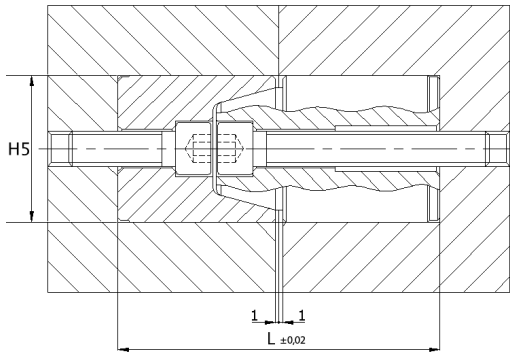
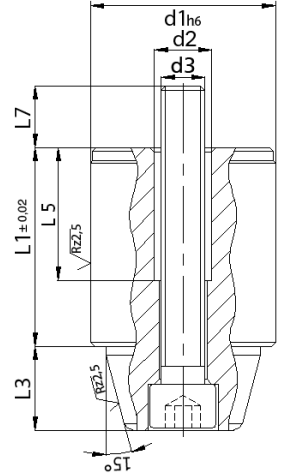
# D50

Konik Kilitleme / Locating Unit

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sementasyon (Case Hardened)  
 ≈DIN ISO 8406



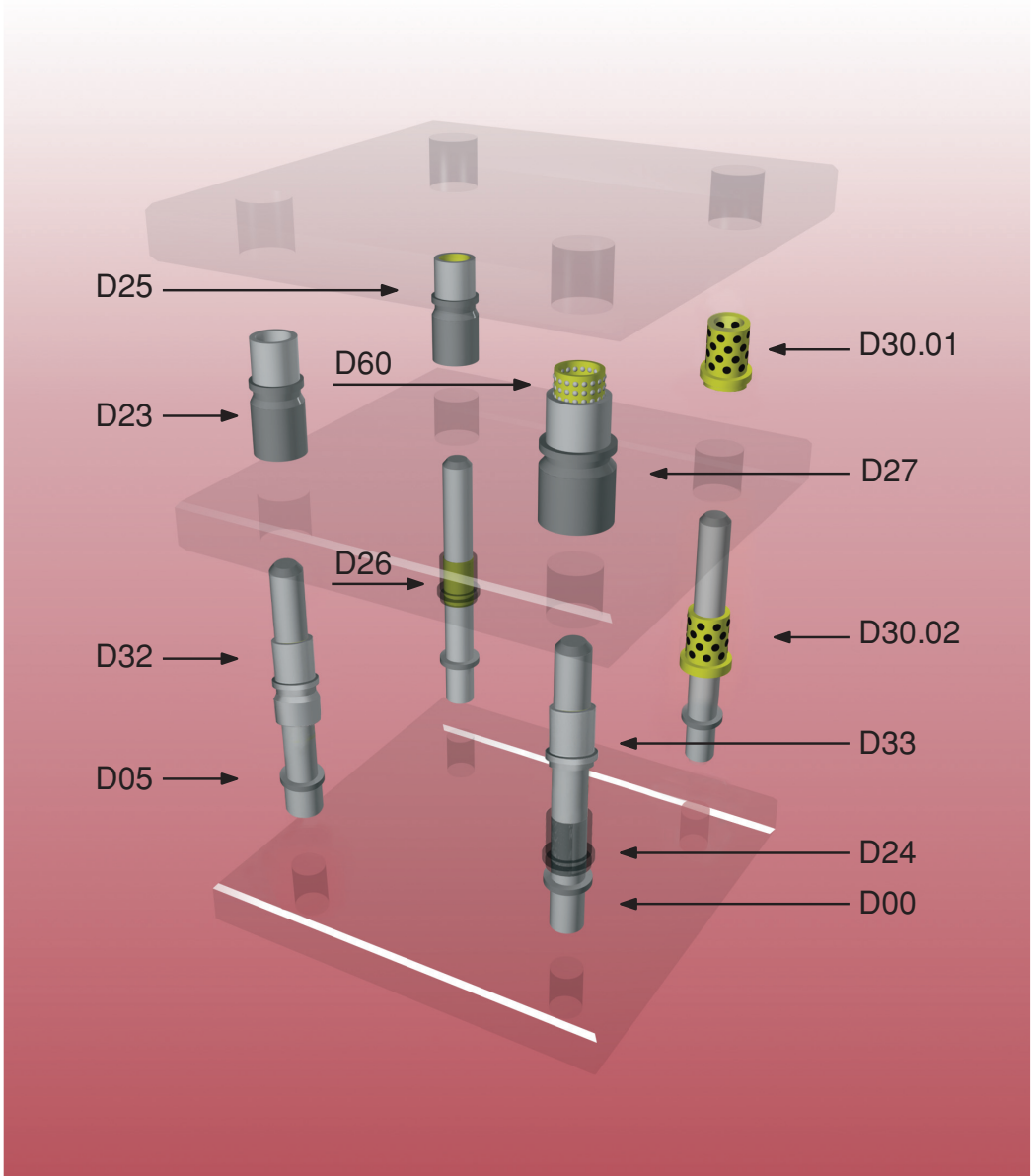
Sipariş Kodu	Ø									
	d1	L	L1	L3	L5	L6	L7	L8	d2	d3
D50_12	12	34	16	4.5	9.6	8.6	8	7.5	M4	M3
D50_14	14	34	16	6	12.4	6	7.5	8	M5	M4
D50_16	16	34	16	6	12.4	5.8	7.5	8	M5	M4
D50_20	20	54	26	9	19.7	10.6	12	9.5	M8	M6
D50_25	25	54	26	10	19.7	9.2	11	11	M8	M6
D50_30	30	72	35	14	25	12.2	15	13	M10	M8
D50_32	32	72	35	14	25	12.2	15	13	M10	M8
D50_42	42	92	45	18	27	16.8	16	13	M10	M8





# Sac Kalıbı Ürünleri

Cutting Mould Components



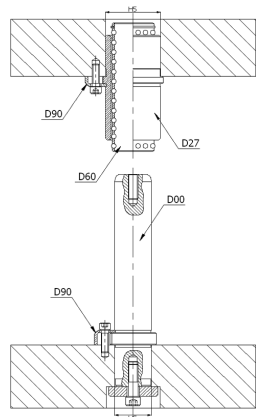
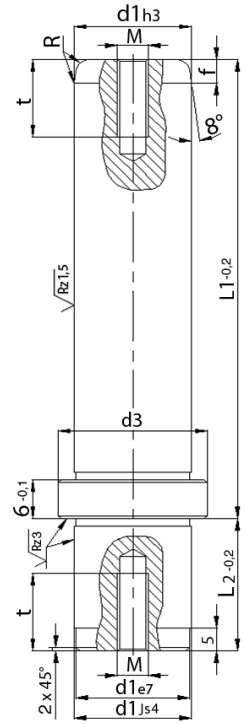
**D00**

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 9825 - 4



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	d3	d5	t	f	R	M
D00_1510020	15	D00_1610020	16	100	20	22	33	20	4	3	6
11220		11220		112							
12520		12520		125							
14020		14020		140							
16020		16020		160							
18020		18020		180							
20020		20020		200							
D00_1910023	19	D00_2010023	20	100	23	25	36	20	4	3	8
11223		11223		112							
12523		12523		125							
14023		14023		140							
16023		16023		160							
18023		18023		180							
20023		20023		200							
D00_2410030	24	D00_2510030	25	100	30	32	43	20	6	5	8
11230		11230		112							
12530		12530		125							
14030		14030		140							
16030		16030		160							
18030		18030		180							
20030		20030		200							
22430		22430		224							
25030		25030		250							
D00_3011237	30	D00_3211237	32	112	37	40	51	20	6	5	8
12537		12537		125							
14037		14037		140							
16037		16037		160							
18037		18037		180							
20037		20037		200							
22437		22437		224							
25037		25037		250							
28037		28037		280							
31537		31537		315							
D00_3812537	38	D00_4012537	40	125	37	50	61	20	6	5	8
14037		14037		140							
16037		16037		160							
18037		18037		180							
20037		20037		200							
22437		22437		224							
25037		25037		250							
28037		28037		280							
31537		31537		315							



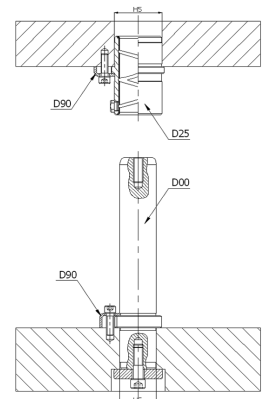
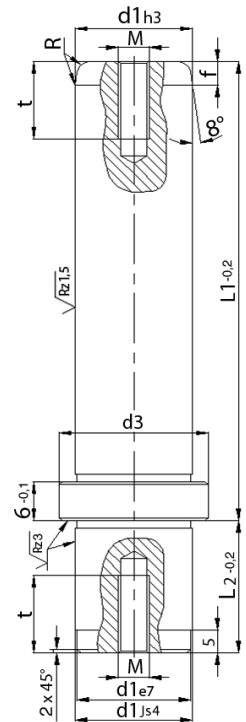
# D00

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 9825 - 4



Sipariş Kodu	d1	Sipariş Kodu	d1	L1	L2	d3	d5	t	f	R	M
D00_3835537	38	D00_4035537	40	355	37	50	61	20	6	5	8
D00_4814047	48	D00_5014047	50	140	47	63	74	20	8	5	8
		16047		160							
		18047		180							
		20047		200							
		22447		224							
		25047		250							
		28047		280							
		31547		315							
		35547		355							
		40047		400							
D00_6016047	60	D00_6316047	63	160	47	80	91	20	8	5	8
		18047		180							
		20047		200							
		22447		224							
		25047		250							
		28047		280							
		31547		315							
		35547		355							
		40047		400							
		D00_8020060	80	200	60	95	106	20	8	5	12
		22460		224							
		25060		250							
		28060		280							
		31560		315							
		35560		355							
		40060		400							



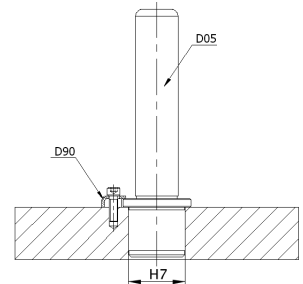
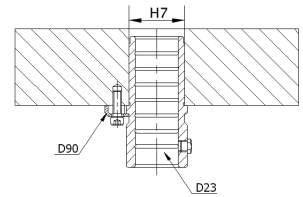
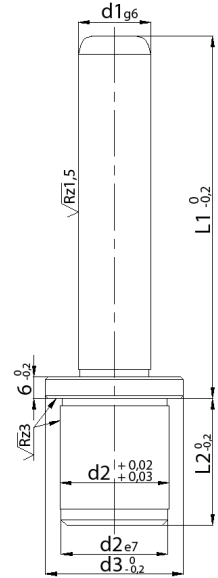
# D05

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)  
 ≈DIN 9825 - 3



Sipariş Kodu	Ø d1	L1	L2	d2	d3
D05_2010025	20	100	25	28	34
35			35		
D05_2012525		125	25		
35			35		
D05_2014025		140	25		
35			35		
D05_2016025		160	25		
35			35		
D05_2018025	180	25			
35		35			
D05_2510025	25	100	25	34	39
35			35		
D05_2512525		125	25		
35			35		
D05_2514025		140	25		
35			35		
D05_2516025		160	25		
35			35		
D05_2518025	180	25			
35		35			
D05_2520025	200	25			
35		35			
D05_2522025	220	25			
35		35			
D05_2524025	240	25			
35		35			
D05_3012535	30	125	35	39	44
45			45		
D05_3014035		140	35		
45			45		
D05_3016035		160	35		
45			45		
D05_3018035		180	35		
45			45		
D05_3020035	200	35			
45		45			
D05_3022035	220	35			
45		45			
D05_3024035	240	35			
45		45			
D05_3026035	260	35			
45		45			



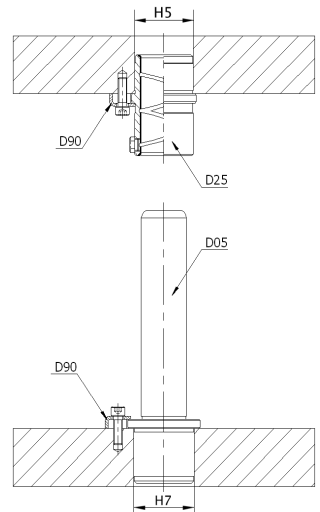
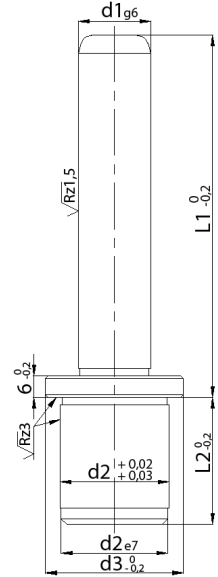
# D05

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)  
 ≈DIN 9825 - 3



Sipariş Kodu	Ø	L1	L2	d2	d3
D05_3028035	30	280	35	39	44
45			45		
D05_3031535	30	315	35	39	44
45			45		



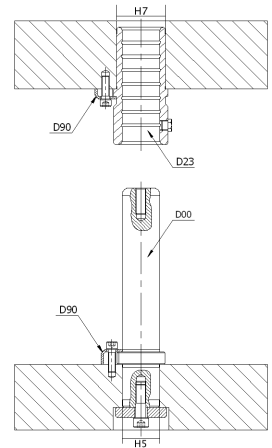
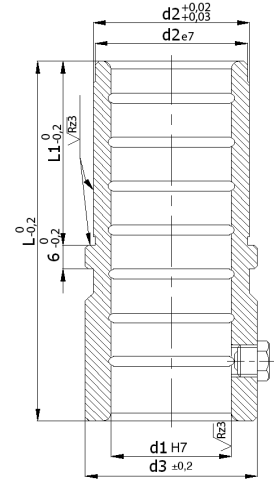
# D23

Burç / Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)



Sipariş Kodu	Ø d1	L	L1	d2	d3
D23_207026	20	70	26	28	34
36			36		
D23_258026	25	80	26	34	39
36			36		
D23_309036	30	90	36	39	44
46			46		
D23_4010036	40	100	36	50	54
10836		108	36	58	65
10046		100	46	50	54
D23_5012046	50	120	46	60	64
56			56		
12756		127	56	70	75
D23_6313056	63	130	56	80	87
15056		150	56	85	95
D23_8015060	80	150	60	105	115



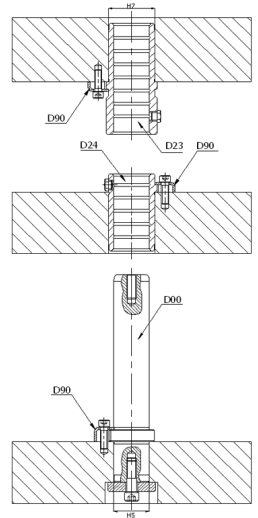
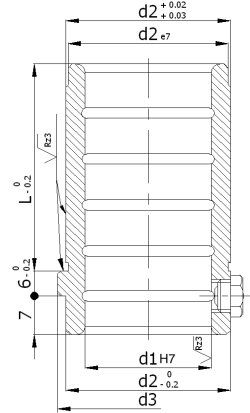
# D24

Burç / Guide Bush

Malzeme - Material : Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sementasyon (Case Hardened)



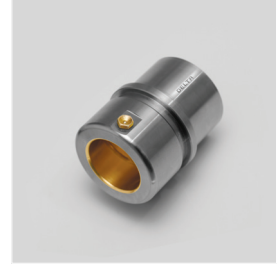
Sipariş Kodu	d1	d2	L	d3
D24_202826	20	28	26	34
D24_253426	25	34	26	39
D24_303926	30	39	26	44
36			36	
D24_405036	40	50	36	54
46			46	
5846		58		65
D24_506046	50	60	46	64
7046		70		75
D24_638546	63	85	46	95
56			56	
D24_8010560	80	105	60	115



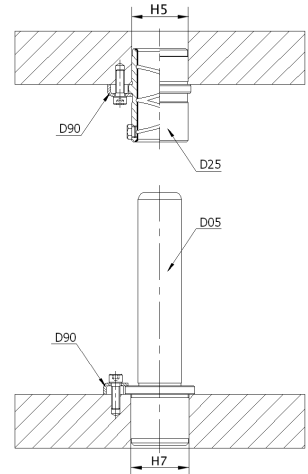
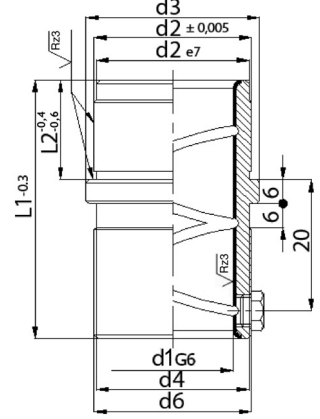
# D25

Bronzlu Burç / Guide Bush with Bronze

Malzeme - Material : Asil Çelik 1.1186 (CK40) + Bronze  
 Sertlik - Hardness : 52± 2 HRC  
 Isıl İşlem - Heat Treatment : İndüksiyon (Induction)  
 ISO - 9448



Sipariş Kodu	Ø	d	L1	L2	d2	d3	d4	d5	d6
D25_194323	19	43	23	32	40	32	52	39	
5923		59							
5933		33							
D25_204323	20	43	23	32	40	32	52	39	
5923		59							
5933		33							
D25_245923	24	59	23	40	48	40	60	46	
7923		79							
7933		33							
D25_255923	25	59	23	40	48	40	60	46	
7923		79							
7933		33							
D25_307530	30	75	30	48	55	48	67	53	
9330		93							
9340		40							
D25_327530	32	75	30	48	55	48	67	53	
9330		93							
9340		40							
D25_388237	38	82	37	58	65	58	77	63	
10837		108							
10847		47							
D25_408237	40	82	37	58	65	58	77	63	
10837		108							
10847		47							
D25_489747	48	97	47	70	80	70	91	77	
12747		127							
12757		57							
D25_509747	50	97	47	70	80	70	91	77	
12747		127							
12757		57							
D25_6011660	60	116	60	85	95	85	106	92	
15060		150							
D25_6311660	63	116	60	85	95	85	106	92	
15060		150							
D25_8012060	80	120	60	105	118	105	129	115	
15060		150							

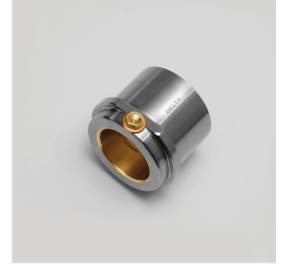




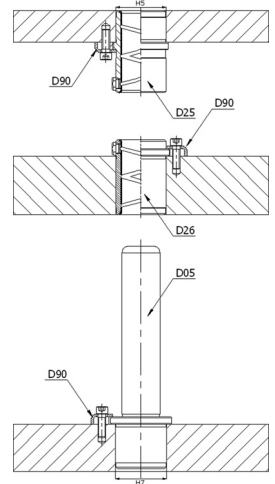
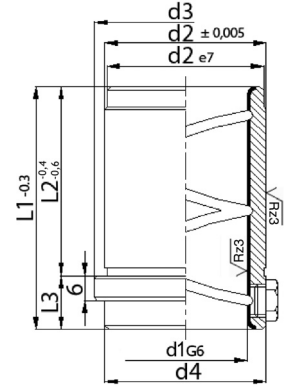
# D26

Bronzlu Burç / Guide Bush with Bronze

Malzeme - Material : Asil Çelik 1.1186 (CK40) + Bronze  
 Sertlik - Hardness :  $52 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : İndüksiyon (Induction)  
 ISO - 9448



Sipariş Kodu	Ø	L1	L2	d2	d3	d4	d5	L3
D26_193523	19	35	23	32	40	32	52	12
4533		45	33					
D26_203523	20	35	23	32	40	32	52	12
4533		45	33					
D26_243523	24	35	23	40	48	40	60	12
4533		45	33					
D26_253523	25	35	23	40	48	40	60	12
4533		45	33					
D26_304230	30	42	30	48	55	48	67	12
5240		52	40					
D26_324230	32	42	30	48	55	48	67	12
5240		52	40					
D26_385237	38	52	37	58	65	58	77	15
6247		62	47					
D26_405237	40	52	37	58	65	58	77	15
6247		62	47					
D26_486547	48	65	47	70	80	70	91	18
7557		75	57					
D26_506547	50	65	47	70	80	70	91	18
7557		75	57					
D26_608060	60	80	60	85	95	85	106	20
D26_638060	63	80	60	85	95	85	106	20
D26_808060	80	80	60	105	118	105	129	20



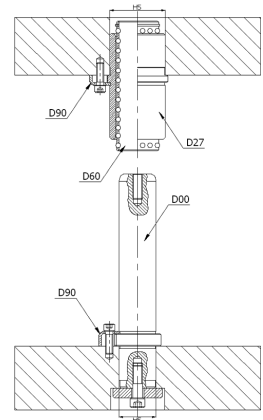
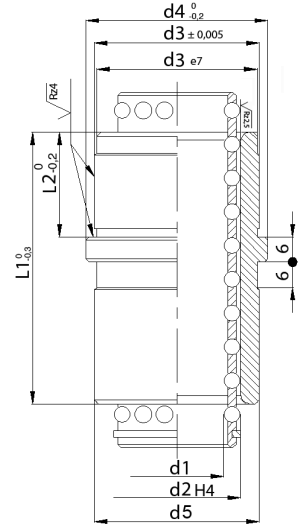
# D27

Burç / Ball Bearing Guide Bush

Malzeme - Material : Asil Çelik 1.3505 (100Cr6)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Sertleştirme (Hardened)  
 ≈DIN 9831  
 ≈ISO 9448 - 7



Sipariş Kodu	d1	L1	L2	d2	d3	d4	d5
D27_154323	15	43	23	21	30	34	32
5923		59					
5933			33				
D27_164323	16	43	23	22	30	34	32
5923		59					
5933			33				
D27_194323	19	43	23	25	32	40	39
5923		59					
5933			33				
D27_204323	20	43	23	26	32	40	39
5923		59					
5933			33				
D27_245923	24	59	23	30	40	48	46
7923		79					
7933			33				
D27_255923	25	59	23	31	40	48	46
7923		79					
7933			33				
D27_307530	30	75	30	38	48	55	53
9330		93					
9340			40				
D27_327530	32	75	30	40	48	55	53
9330		93					
9340			40				
D27_388237	38	82	37	46	58	65	63
10837		108					
10847			47				
D27_408237	40	82	37	48	58	65	63
10837		108					
10847			47				
D27_489747	48	97	47	56	70	80	77
12747		127					
12757			57				
D27_509747	50	97	47	58	70	80	77
12747		127					
12757			57				
D27_6011660	60	116	60	68	85	95	92
15060		150					
D27_6311660	63	116	60	71	85	95	92
15060		150					



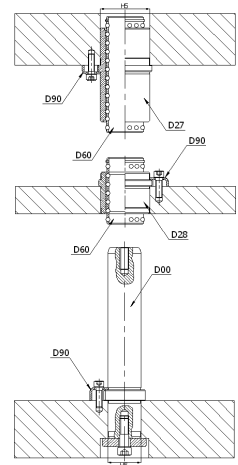
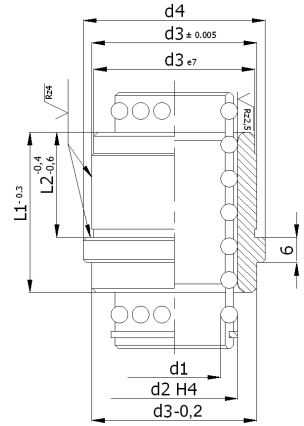
# D28

Burç / Ball Bearing Guide Bush

Malzeme - Material : Asil Çelik 1.3505 (100Cr6)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isıl İşlem - Heat Treatment : Sertleştirme (Hardened)  
 ≈DIN 9831  
 ≈ISO 9448 - 7



Sipariş Kodu	Ø	d1	L1	L2	d2	d3	d4
D28_153523	15	15	35	23	21	30	34
4533			45	33			
D28_163523	16	16	35	23	22	30	34
4533			45	33			
D28_193523	19	19	35	23	25	32	40
4533			45	33			
D28_203523	20	20	35	23	26	32	40
4533			45	33			
D28_243523	24	24	35	23	30	40	48
4533			45	33			
D28_253523	25	25	35	23	31	40	48
4533			45	33			
D28_304230	30	30	42	30	38	48	55
5240			52	40			
D28_324230	32	32	42	30	40	48	55
5240			52	40			
D28_385237	38	38	52	37	46	58	65
6247			62	47			
D28_405237	40	40	52	37	48	58	65
6247			62	47			
D28_486547	48	48	65	47	56	70	80
7557			75	57			
D28_506547	50	50	65	47	58	70	80
7557			75	57			
D28_608060	60	60	80	60	68	85	95
D28_638060	63	63	80	60	71	85	95



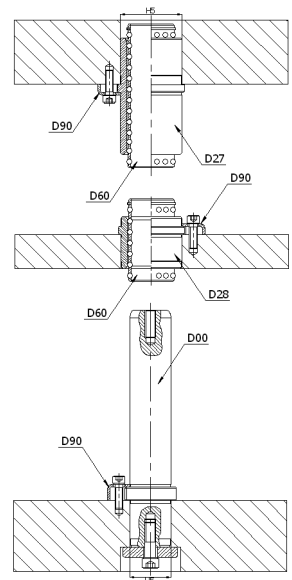
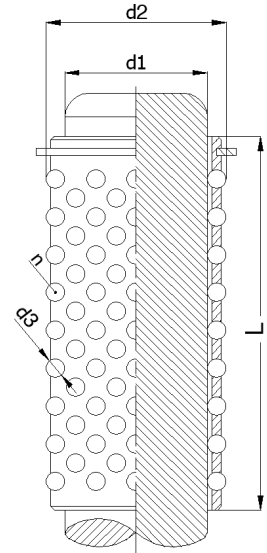
# D60

Bilyalı Kafes / Ball Cage

Malzeme - Material : Ms58  
 Bilya Malzemesi - Ball Material : 100Cr6 (1.3505)  
 ≈DIN 471  
 ≈DIN 5401



Sipariş Kodu	Ø	L	d2	d3	n			
D60_1240	12	40	16	2	176			
56		56			272			
D60_1545	15	45	21	3	140			
56		56			196			
71		71			238			
D60_1645	16	45	22	3	140			
56		56			196			
71		71			238			
D60_1845	18	45	24	3	176			
56		56			240			
71		71			272			
D60_1945	19	45	25	3	180			
56		56			234			
71		71			306			
80		80			342			
D60_2045	20	95	26	3	414			
56		45			180			
71		56			234			
80		71			306			
D60_2445	24	95	30	3	414			
105		45			180			
120		56			240			
D60_2545		25			71	31	3	280
80					80			320
95					95			440
105	105		480					
120	120		560					
D60_3045	30		45	38	4			140
56		56	180					
75		75	240					
80		80	280					
95		95	340					
105		105	380					
120		120	420					
140		140	500					



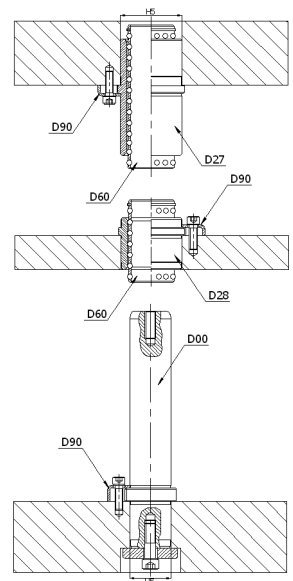
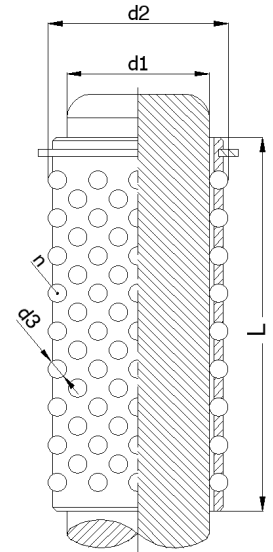
# D60

Bilyalı Kafes / Ball Cage

Malzeme - Material : Ms58  
 Bilya Malzemesi - Ball Material : 100Cr6 (1.3505)  
 ≈DIN 471  
 ≈DIN 5401



Sipariş Kodu	Ø d1	L	d2	d3	n
D60_3245	32	45	40	4	140
56		56			180
75		75			240
80		80			280
95		95			340
105		105			380
120		120			420
140		140			500
D60_3856		38			56
71	71		288		
80	80		336		
95	95		408		
105	105		456		
120	120		528		
140	140		624		
160	160		720		
D60_4056	40	56	48	4	216
71		71			288
80		80			336
95		95			408
105		105			456
120		120			528
140		140			624
160	160	720			
D60_4871	48	71	56	4	360
80		80			390
95		95			480
105		105			540
120		120			600
140		140			720
160		160			840
D60_5071	50	71	58	4	360
80		80			390
95		95			480
105		105			540
120		120			600
140		140			720
160		160			840
D60_6085	60	85	68	4	504
105		105			612
140		140			828
160		160			972
D60_6385	63	85	71	4	504



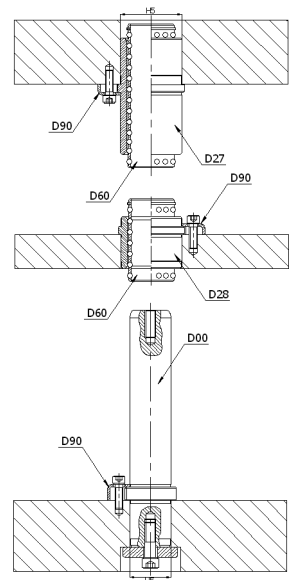
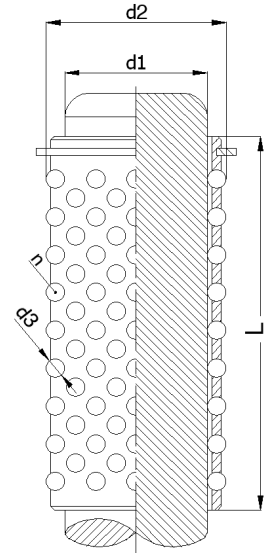
# D60

Bilyalı Kafes / Ball Cage

Malzeme - Material : Ms58  
 Bilya Malzemesi - Ball Material : 100Cr6 (1.3505)  
 ≈DIN 471  
 ≈DIN 5401



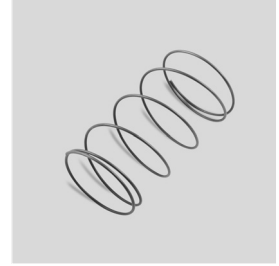
Sipariş Kodu	d1	L	d2	d3	n
D60_63105	63	105	71	4	612
140		140			828
160		160			972



**D60.01**

Bilyalı Kafes Tutucusu / Helical Spring for Ball Cage Retention

Malzeme - Material : Yay Çeliği - Spring Steel



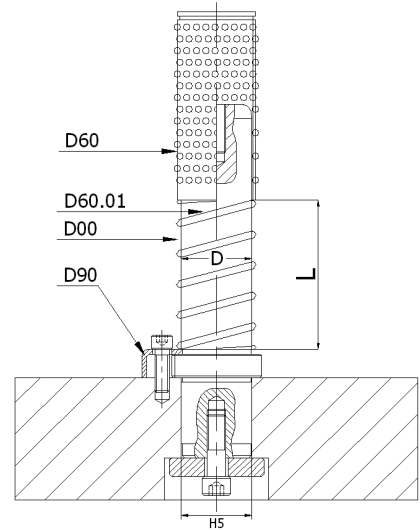
ØD	L	Not / Note
19	40-140	L 10 mm. aralıklarla
20	40-140	
24	40-180	
25	40-180	
30	50-230	
32	50-230	L 10 mm. gradation
38	60-230	
40	60-230	
48	70-280	
50	70-280	
60	80-250	
63	80-250	

**Sipariş Kodu Örneği**

Spiral Yay	=	D60.01_
Ø Kolon	=	19
Yay Boy	=	40
Sipariş Kodu	=	D60.01_1940

**Order Code Example**

Helical Spring	=	D60.01_
Ø Pillar	=	19
Spring Length	=	40
Order Code	=	D60.01_1940



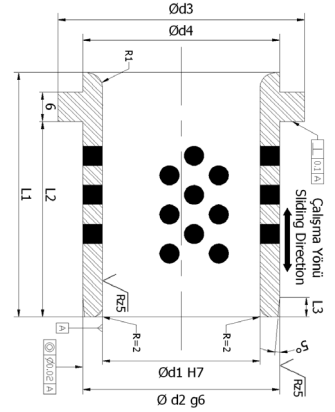
# D30.01

Grafitli Burç / Oilless Guide Bush

Malzeme - Material : SAE 430B  
 Sertlik - Hardness : HB≥180  
 ≈DIN 9832

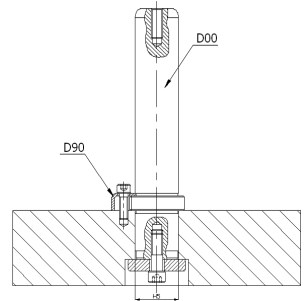
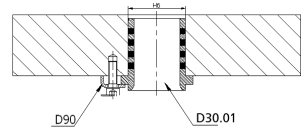


Sipariş Kodu	FORD WDX1370	NAAMS G61	OPEL U2802-99(A)	Ø	d1	L1	d2	d3	d4	L2	L3	R1
D30.01_2040				20	40	28	34	28	30	4	3	
D30.01_2540	11025	2540	F33020019	25	40	32	40	32	30	4	3	
D30.01_3050				30	50	40	50	40	40	4	3	
D30.01_3250	11032	3250	F33020020	32	50	40	50	40	40	4	3	
D30.01_4063	11040	4063	F33020021	40	63	50	63	50	50	5	3	
D30.01_5071	11050	5071	F33020022	50	71	63	71	63	56	6	5	
D30.01_6380	11063	6300	F33020023	63	80	80	90	80	63	8	6	
D30.01_80100	11080	8010	F33020024	80	100	100	112	100	80	10	8	
D30.01_100125	11100	1012	F33020025	100	125	125	140	125	106	12	10	
D30.01_125160	11125	1216	F33020026	125	160	160	180	160	132	12	12	



**Not:**  
 Toleranssız ölçüler EN-22768 -1 standardına göre üretilir.  
 Belirtilmeyen köşeler R=0,5

Note:  
 All dimensions without tolerances as per EN 22768-1  
 Corners indications R=0,5





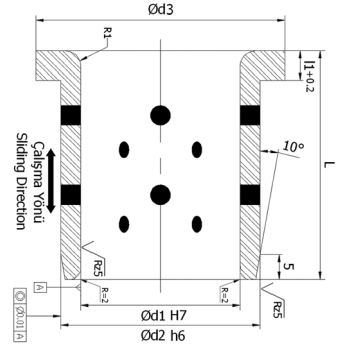
## D30.02

Grafitli Burç / Oilless Guide Bush

Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180

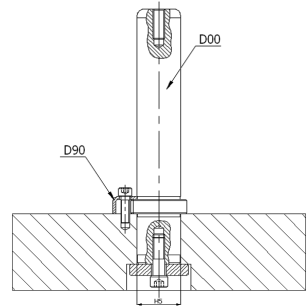
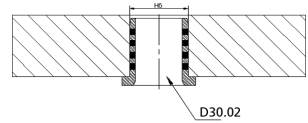


Sipariş Kodu	FORD WDX1370	FORD WSA 003	Ø		d2	d3	l1	R1
			d1	L				
D30.02_2035	05020	11020	20	35	28	36	8	2
D30.02_2540			25	40	32	40	8	6
D30.02_3055			30	55	40	50	8	6
D30.02_3255	05032		32	55	40	50	8	6
D30.02_4070	05040		40	70	50	60	8	6
D30.02_4270	05042	11042	42	70	50	60	8	6
D30.02_5075	05050		50	75	63	75	12	8
D30.02_5275	05052	11052	52	75	63	75	12	8
D30.02_6380	05063		63	80	80	90	12	8
D30.02_80100	05080		80	100	100	110	12	8
D30.02_100125	05100		100	125	125	135	12	8



**Not:**  
Toleranssız ölçüler EN-22768 -1 standardına göre üretilir.  
Belirtilmeyen köşeler R=0,5

Note:  
All dimensions without tolerances as per EN 22768-1  
Corners indications R=0,5



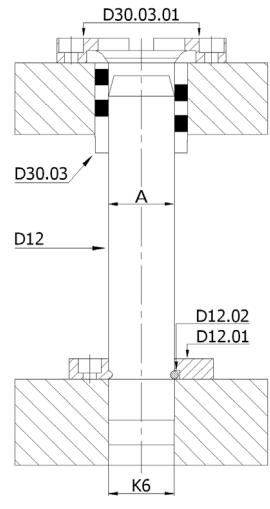
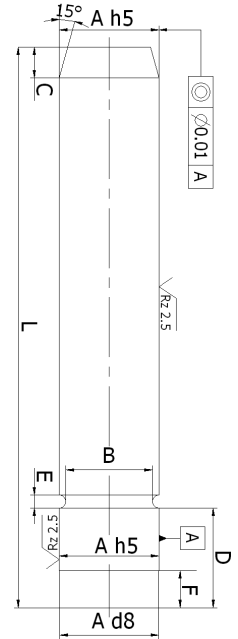
# D12

Kolon / Guide Pillar - AFNOR

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)



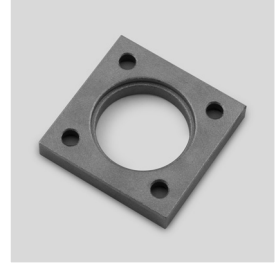
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code	Ø		B	C	D	E	F
			A	L					
D12_25100			25	100	22.3	8	25	2.5	8
125		R100 018 363		125					
140				140					
160				160					
180				180					
200				200					
220				220					
D12_32125			32	125	27.8	10	32	4.2	12
140		P446 116 817		140					
160		P446 116 815		160					
180				180					
200		P446 116 816		200					
220				220					
250				250					
D12_40180	P446 117 470		40	180	35.8	12	63	4.2	12
200	P446 117 401			200					
220	P446 117 476			220					
250				250					
280				280					
315				315					
D12_50200			50	200	45.8	16	80	4.2	12
220	P446 118 170	P446 118 100		220					
250	P446 118 174			250					
280	P446 118 101	P446 118 101		280					
315				315					
355				355					
400				400					
D12_63250	P446 118 701	P446 118 701	63	250	56.8	16	100	6.2	18
280		P446 118 707		280					
315	P446 118 702	P446 118 702		315					
355				355					
400				400					
D12_80315	P446 119 200	P446 119 200	80	315	73.8	16	125	6.2	18
355	P446 119 270	P446 119 201		355					
400		R100 221 692		400					
450				450					
D12_100355			100	355	93.8	16	160	6.2	18
400		P446 119 800		400					
450		P446 119 801		450					
500				500					



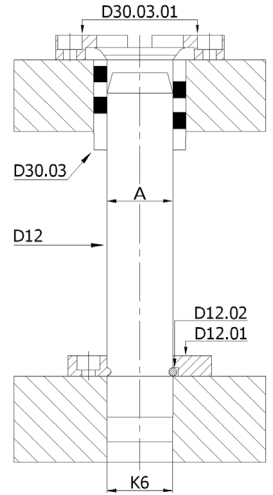
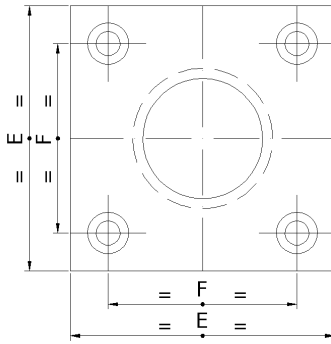
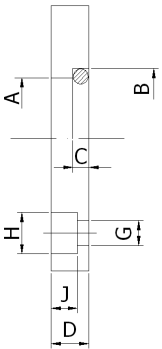
# D12.01

Kolon Tutucu Flanş / Clamping Flange - AFNOR

Malzeme - Material : CK45



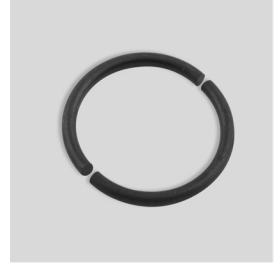
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code	Ø								
			A	B	G	H	J	D	C	E	F
D12.01_25	Z000 248 844	P483 784 100	25	28	6.6	11	7	10	2.7	45	31
32	P446 932 711	P483 784 600	32	37	6.6	11	7	10	4.2	56	36
40	P446 932 701	P483 795 100	40	45	6.6	11	7	12	4.2	70	50
50	P446 932 702	P483 795 401	50	55	9	16	9	14	4.2	80	55
63	P446 932 703	P483 795 801	63	70	11	18	11	18	6.2	100	70
80	P446 932 704	P483 796 001	80	87	13	22	14	20	6.2	110	80
100		P483 796 401	100	107	13	22	14	20	6.2	140	100



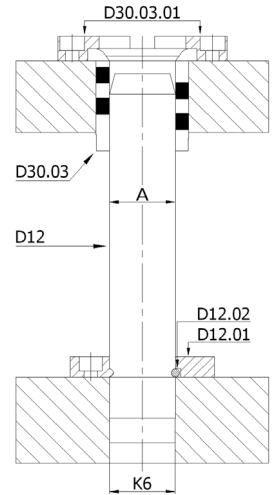
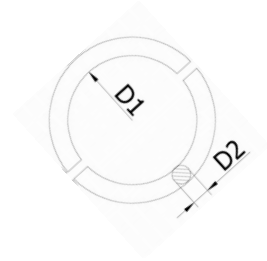
## D12.02

Tutucu Halka / Retaining Ring - AFNOR

Malzeme - Material : 1040



Sipariş Kodu	RENAULT Mabec Code	Ø		
		A	D1	D2
D12.02_25	P446 180 200	25	22.5	2.5
32	P446 180 300	32	28	4
40	P446 180 400	40	36	4
50	P446 180 500	50	46	4
63	P446 180 600	63	57	6
80	P446 180 700	80	74	6
100	P446 180 800	100	94	6



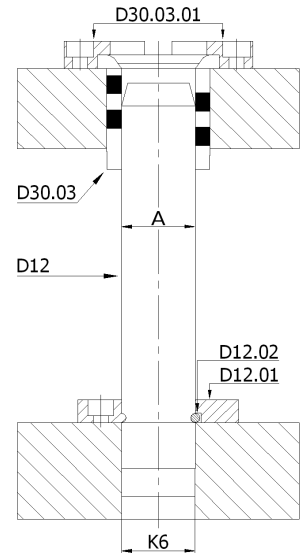
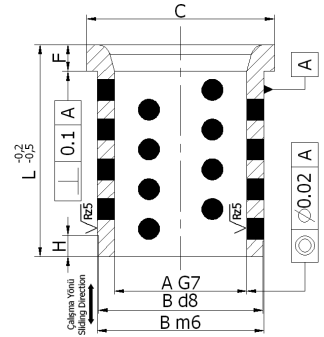
# D30.03

Grafitli Burç / Oilless Guide Bush - AFNOR

Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



Sipariş Kodu	PSA MABEC CODE	RENAULT MABEC CODE	Ø		B	C	F	H
			A	L				
D30.03_2540			25	40	35	40	5	5
3250			32	50	44	50	6	5
4063	X345 274 670	M764 539 401	40	63	52	60	8	8
5080	X345 281 970	M764 544 501	50	80	63	71	10	8
63100	X345 287 270	M764 549 501	63	100	80	90	12	10
80125	X345 292 370	M764 554 601	80	125	100	112	16	10
100160		X345 298 500	100	160	125	140	20	10



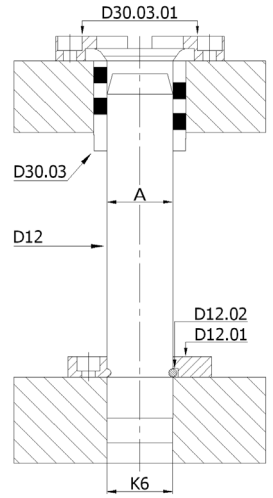
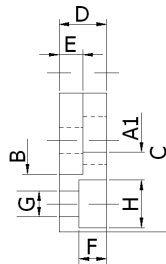
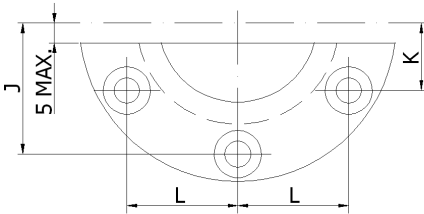
# D30.03.01

Burç Tutucu Flanş / Retaining Flange - AFNOR

Malzeme - Material : CK45



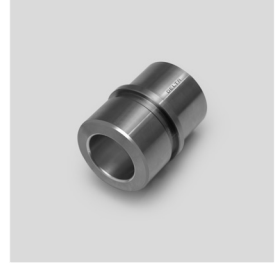
			Ø											
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code	A	A1	B	C	D	E	F	G	H	K	J	L
D30.03.01_25		M321 534 500	25	32	41	72	10	5	7	6.6	12	20		20
32	P446 932 717	M321 544 501	32	40	51	80	12	6	7	6.6	12	21		25
40	P446 932 712	M321 548 501	40	50	61	100	12	8	7	6.6	12	14	41	38.5
50	P446 932 713	M321 552 601	50	63	72	125	16	10	9	9	16	17	49	46
63	P446 932 714	M321 556 601	63	80	91	140	20	12	11	11	18	17	57.5	55
80	P446 932 715	M321 560 601	80	100	113	180	25	16	13	14	22	20	72	70
100		M321 562 700	100	125	141	200	32	20	13	14	22	25	85	81



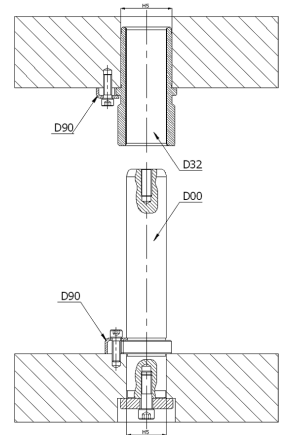
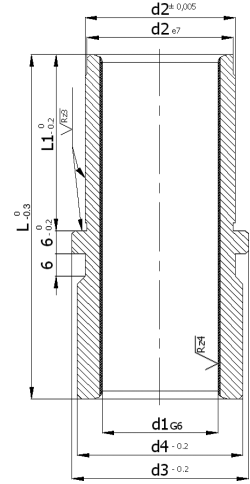
## D32

Sinterli Burç / Guide Bush with Sintered

Malzeme - Material : 1.1191 (Ck45) + Sinter  
 Sertlik - Hardness :  $52 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : İndüksiyon (Induction)



Sipariş Kodu	d1	L	L1	d2	d3	d4
D32_207026	20	70	26	32	40	38
36			36			
D32_258026	25	80	26	40	47	45
36			36			
D32_309036	30	90	36	48	54	52
46			46			
D32_4010036	40	100	36	58	64	62
46			46			
D32_5012046	50	120	46	70	78	76
56			56			
D32_6315056	63	150	56	85	93	91



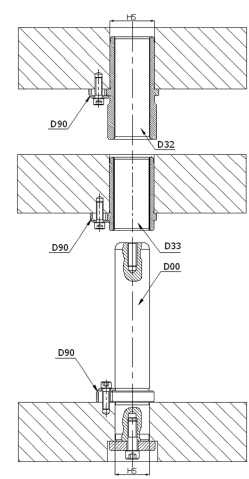
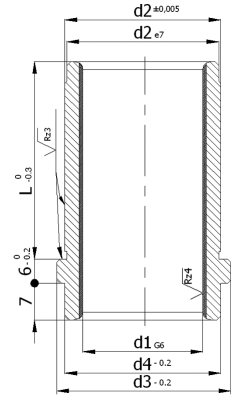
# D33

Sinterli Burç / Guide Bush with Sintered

Malzeme - Material : 1.1191 (Ck45) + Sinter  
 Sertlik - Hardness : 52± 2 HRC  
 Isıl İşlem - Heat Treatment : Indüksiyon (Induction)



Sipariş Kodu	d1	d2	L	d3	d4
D33_203226	20	32	26	40	32
36			36		
D33_254026	25	40	26	47	40
36			36		
D33_304826	30	48	26	54	48
36			36		
D33_405836	40	58	36	64	58
46			46		
D33_507046	50	70	46	78	70
D33_638556	63	85	56	93	85





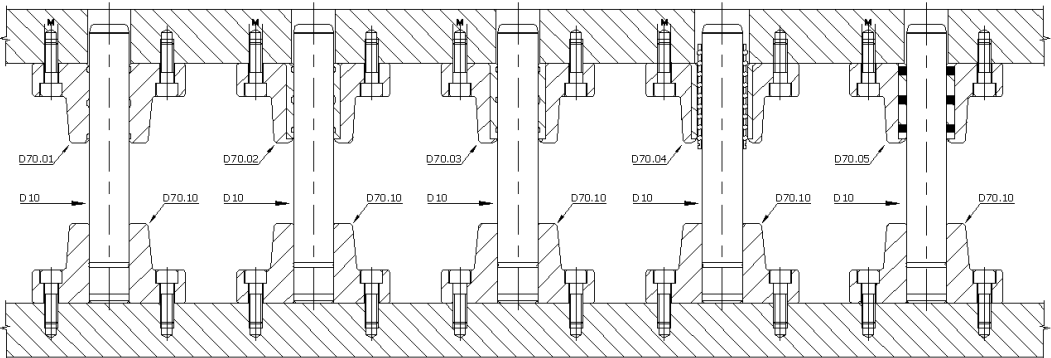
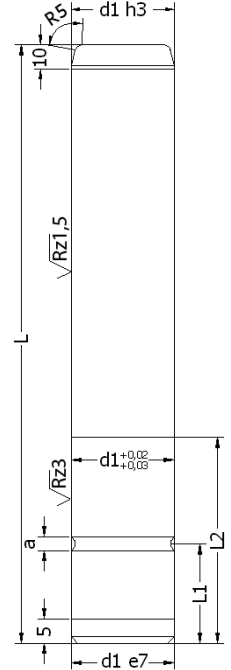
# D10

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Islah + İndüksiyon (Allowance + Induction)



Sipariş Kodu	Ø d1	L	L1	L2	a
D10_40180	40	180	37	77	8
220		220			
260		260			
300		300			
355		355			
400		400			
D10_50200	50	200	47	95	8
240		240			
280		280			
315		315			
355		355			
400		400			
D10_63240	63	240	60	120	8
280		280			
315		315			
355		355			
400		400			
450		450			
D10_80240	80	240	60	120	8
280		280			
315		315			
355		355			
400		400			
450		450			
500	500				



# D70.01

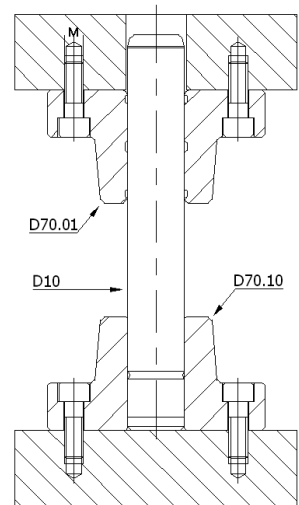
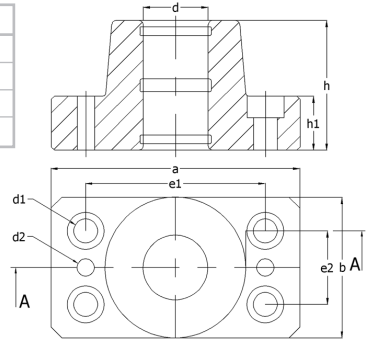
Döküm Blok / Guide Bearing

Malzeme - Material: GG25



	Ø								
Sipariş Kodu	<b>d</b>	<b>d1</b>	<b>d2</b>	<b>h</b>	<b>h1</b>	<b>a</b>	<b>b</b>	<b>e1</b>	<b>e2</b>
D70.01_40	40	13	10	77	30	130	80	95	45
50	50	15	10	95	35	160	96	118	55
63	63	17	12	120	35	180	110	132	62
80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.02

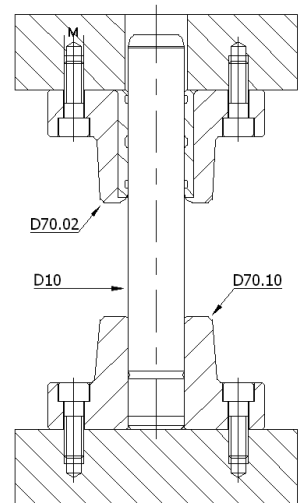
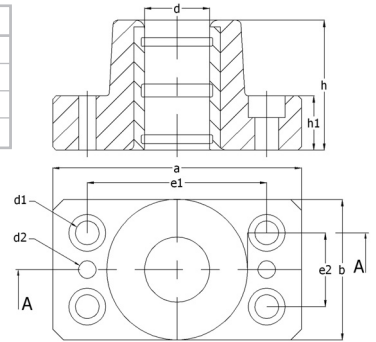
Bronzlu Döküm Blok / Guide Bearing with Bronze

Malzeme - Material: GG25 / Bronze



	Ø								
Sipariş Kodu	<b>d</b>	d1	d2	h	h1	a	b	e1	e2
D70.02_40	40	13	10	77	30	130	80	95	45
50	50	15	10	95	35	160	96	118	55
63	63	17	12	120	35	180	110	132	62
80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.03

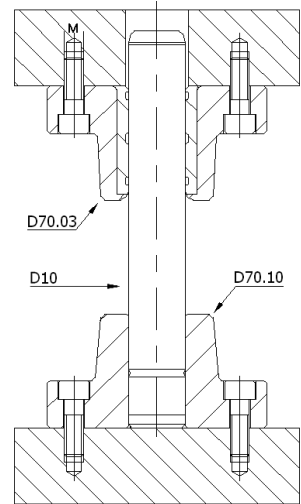
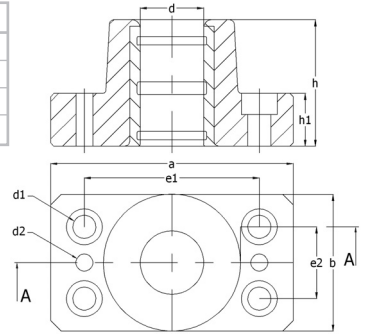
Çelik Kaymalı Döküm Blok / Guide Bearing with Steel

Malzeme - Material : GG25 / Asil Çelik 1.7131 (16MnCr5)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment : Sementasyon (Case Hardened)



	Ø								
Sipariş Kodu	d	d1	d2	h	h1	a	b	e1	e2
D70.03_40	40	13	10	77	30	130	80	95	45
50	50	15	10	95	35	160	96	118	55
63	63	17	12	120	35	180	110	132	62
80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.04

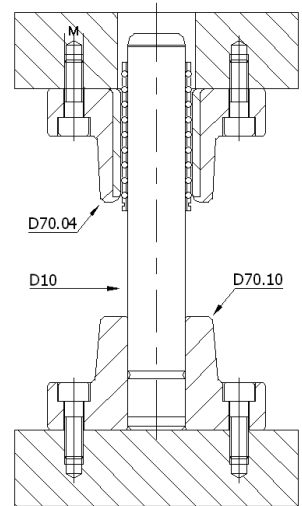
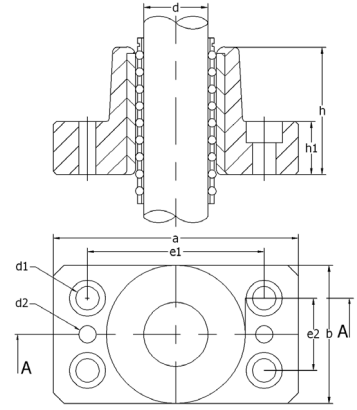
Bilyalı Döküm Blok / Guide Bearing with Ball Cage

Malzeme - Material : GG25 /Asil Çelik 1.3505 (100Cr6)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment : Sementasyon (Case Hardened)



Sipariş Kodu	Ø								
	d	d1	d2	h	h1	a	b	e1	e2
D70.04_40	40	13	10	77	30	130	80	95	45
50	50	15	10	95	35	160	96	118	55
63	63	17	12	120	35	180	110	132	62
80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.05

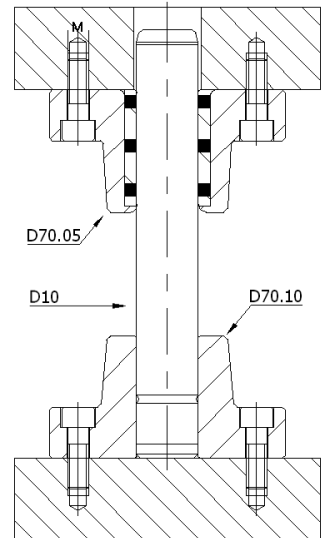
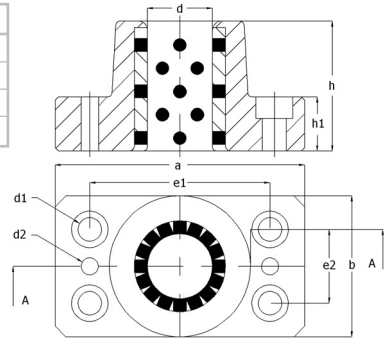
Grafitli Döküm Blok / Guide Bearing Non-Lubricant

Malzeme - Material: GG25 / SAE 430B  
Sertlik - Hardness : HB≥180



	Ø								
Sipariş Kodu	d	d1	d2	h	h1	a	b	e1	e2
D70.05_40	40	13	10	77	30	130	80	95	45
50	50	15	10	95	35	160	96	118	55
63	63	17	12	120	35	180	110	132	62
80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.10

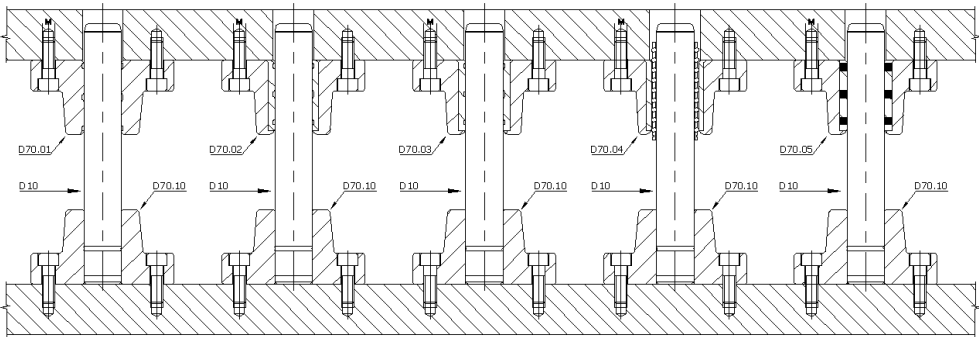
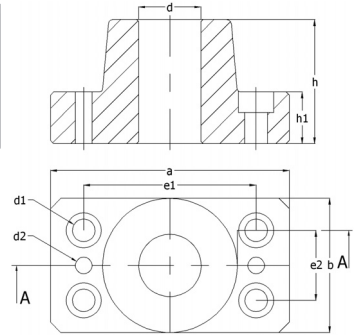
Kolon Sabitleme Bloğu / Pillar Bearing

Malzeme - Material: GG25



Sipariş Kodu	Ø	d	d1	d2	h	h1	a	b	e1	e2
D70.10_40	40	40	13	10	77	30	130	80	95	45
50	50	50	15	10	95	35	160	96	118	55
63	63	63	17	12	120	35	180	110	132	62
80	80	80	21	14	120	40	215	130	160	75

Ød	M
40	12
50	14
63	16
80	20



# D70.011

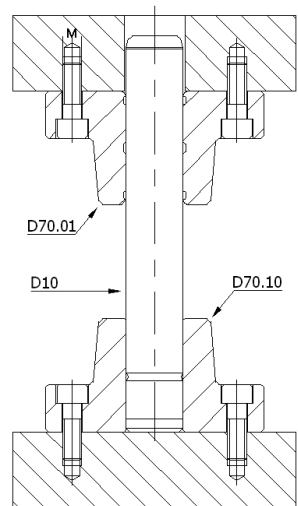
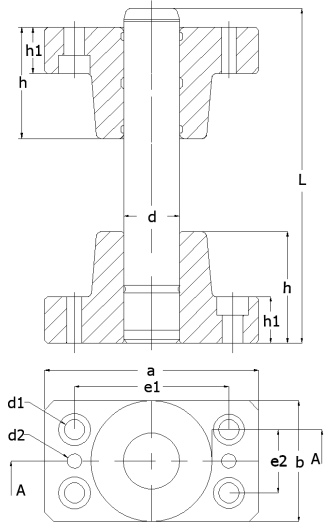
Döküm Set / Guide Bearing Set

Malzeme - Material : GG25 / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isıl İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø d	L	d1	d2	h	h1	a	b	e1	e2
D70.011_40180	40	180	13	10	77	30	130	80	95	45
220		220								
260		260								
300		300								
355		355								
400		400								
D70.011_50200	50	200	15	10	95	35	160	96	118	55
240		240								
280		280								
315		315								
355		355								
400		400								
450		450								
D70.011_63240	63	240	17	12	120	35	180	110	132	62
280		280								
315		315								
355		355								
400		400								
450		450								
D70.011_80240	80	240	21	14	120	40	215	130	160	75
280		280								
315		315								
355		355								
400		400								
450		450								
500		500								

Ød	M
40	12
50	14
63	16
80	20





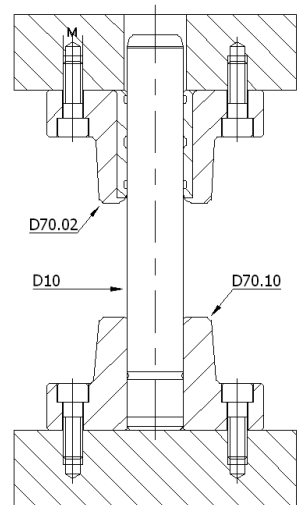
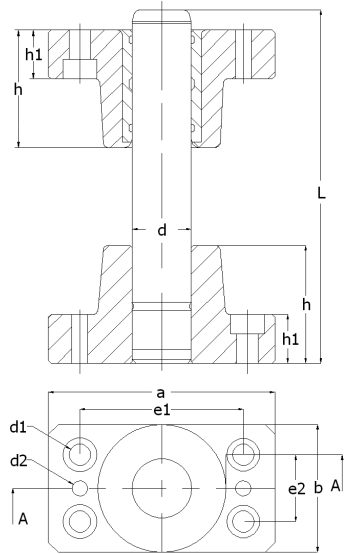
# D70.021

Bronzlu Döküm Set / Guide Bearing Set with Bronze

Malzeme - Material : GG25 / Bronze / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø d	L	d1	d2	h	h1	a	b	e1	e2
D70.021_40180	40	180	13	10	77	30	130	80	95	45
220		220								
260		260								
300		300								
355		355								
400		400								
D70.021_50200	50	200	15	10	95	35	160	96	118	55
240		240								
280		280								
315		315								
355		355								
400		400								
450		450								
D70.021_63240	63	240	17	12	120	35	180	110	132	62
280		280								
315		315								
355		355								
400		400								
450		450								
D70.021_80240	80	240	21	14	120	40	215	130	160	75
280		280								
315		315								
355		355								
400		400								
450		450								
500		500								



Ød	M
40	12
50	14
63	16
80	20

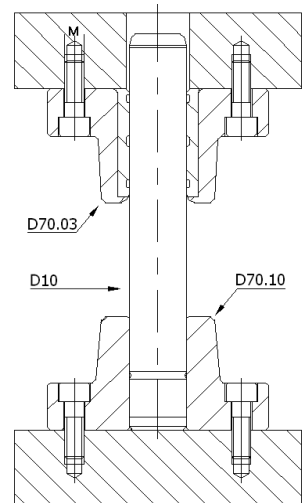
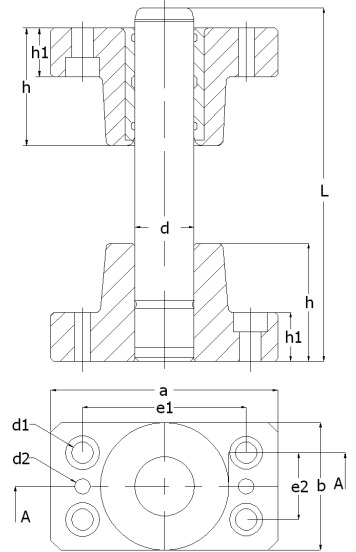
# D70.031

Çelik Kaymalı Döküm Set / Guide Bearing Set with Steel

Malzeme - Material : GG25 / Asil Çelik 1.7131 (16MnCr5) / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)  
 Sementasyon (Case Hardened)



Sipariş Kodu	Ø	d	L	d1	d2	h	h1	a	b	e1	e2
D70.031_40180	40	180	13	10	77	30	130	80	95	45	
220		220									
260		260									
300		300									
355		355									
400		400									
D70.031_50200	50	200	15	10	95	35	160	96	118	55	
240		240									
280		280									
315		315									
355		355									
400		400									
450		450									
D70.031_63240	63	240	17	12	120	35	180	110	132	62	
280		280									
315		315									
355		355									
400		400									
450		450									
D70.031_80240	80	240	21	14	120	40	215	130	160	75	
280		280									
315		315									
355		355									
400		400									
450		450									
500		500									



Ød	M
40	12
50	14
63	16
80	20

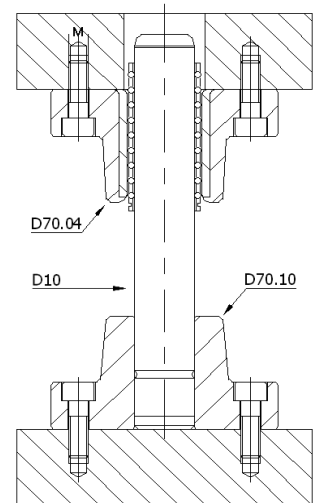
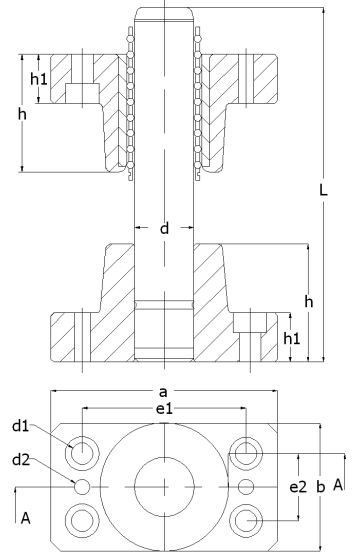
# D70.041

Bilyalı Döküm Set / Guide Bearing Set with Ball Cage

Malzeme - Material : GG25 / Asil Çelik 1.3505 (100Cr6) / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)  
 Sementasyon (Case Hardened)



Ø										
Sipariş Kodu	d	L	d1	d2	h	h1	a	b	e1	e2
D70.041_40180	40	180	13	10	77	30	130	80	95	45
220		220								
260		260								
300		300								
355		355								
400		400								
D70.041_50200	50	200	15	10	95	35	160	96	118	55
240		240								
280		280								
315		315								
355		355								
400		400								
450		450								
D70.041_63240	63	240	17	12	120	35	180	110	132	62
280		280								
315		315								
355		355								
400		400								
450		450								
D70.041_80240	80	240	21	14	120	40	215	130	160	75
280		280								
315		315								
355		355								
400		400								
450		450								
500		500								



Ød	M
40	12
50	14
63	16
80	20

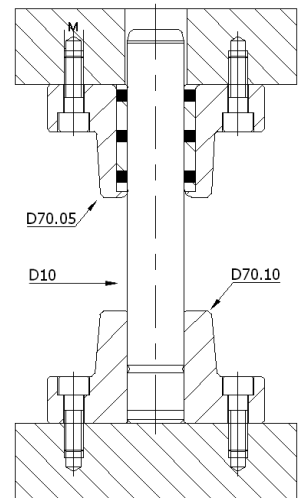
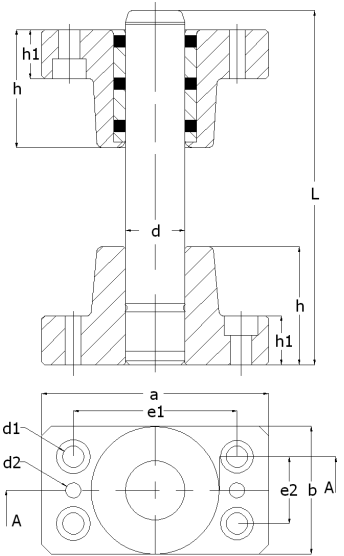
# D70.051

Grafitli Döküm Set / Guide Bearing Set Non-Lubricant

Malzeme - Material : GG25 / SAE 430B / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC / HB≥180  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø	d	L	d1	d2	h	h1	a	b	e1	e2
D70.051_40180	40	180	13	10	77	30	130	80	95	45	
220		220									
260		260									
300		300									
355		355									
400		400									
D70.051_50200	50	200	15	10	95	35	160	96	118	55	
240		240									
280		280									
315		315									
355		355									
400		400									
450		450									
D70.051_63240	63	240	17	12	120	35	180	110	132	62	
280		280									
315		315									
355		355									
400		400									
450		450									
D70.051_80240	80	240	21	14	120	40	215	130	160	75	
280		280									
315		315									
355		355									
400		400									
450		450									
500		500									



Ød	M
40	12
50	14
63	16
80	20

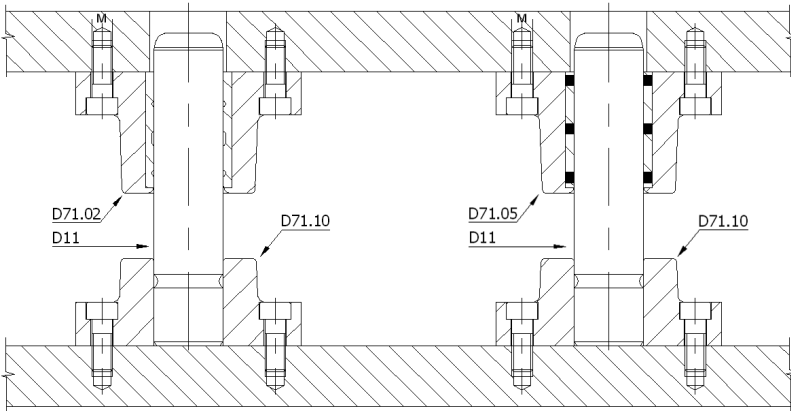
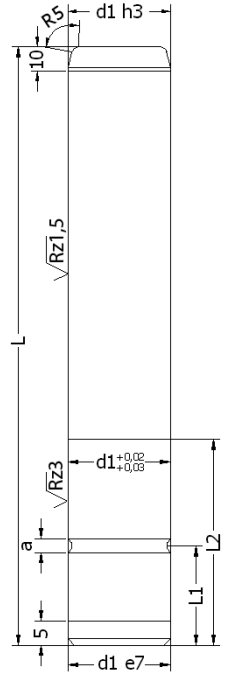
# D11

Kolon / Guide Pillar

Malzeme - Material : Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness :  $62 \pm 2$  HRC  
 Isil İşlem - Heat Treatment : Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø d1	L	L1	L2	a
D11_40160	40	160	25	50	8
180		180			
200		200			
225		225			
250		250			
280		280			
D11_50160	50	160	35	70	8
180		180			
200		200			
225		225			
250		250			
280		280			
315		315			



# D71.02

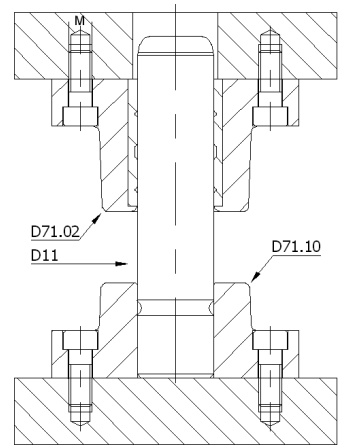
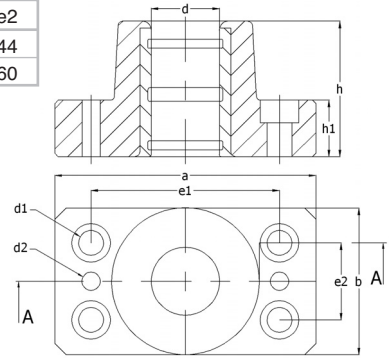
Bronzlu Döküm Blok / Guide Bearing with Bronze

Malzeme - Material: GG25 / Bronze



	Ø								
Sipariş Kodu	<b>d</b>	d1	d2	h	h1	a	b	e1	e2
D71.02_40	40	13	10	70	25	130	75	100	44
50	50	13	10	85	25	155	90	125	60

Ød	M
40	12
50	12



# D71.05

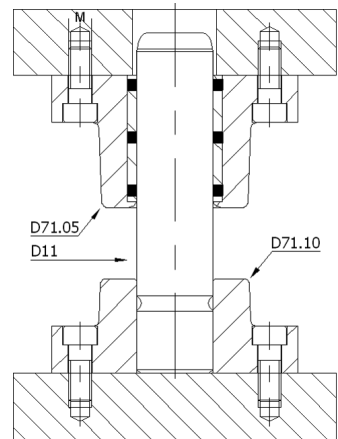
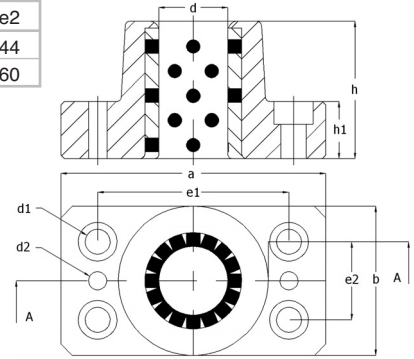
Grafitli Döküm Blok / Guide Bearing Non-Lubricant

Malzeme - Material: GG25 / SAE 430B  
Sertlik - Hardness : HB≥180



	Ø								
Sipariş Kodu	d	d1	d2	h	h1	a	b	e1	e2
D71.05_40	40	13	10	70	25	130	75	100	44
50	50	13	10	85	25	155	90	125	60

Ød	M
40	12
50	12



# D71.10

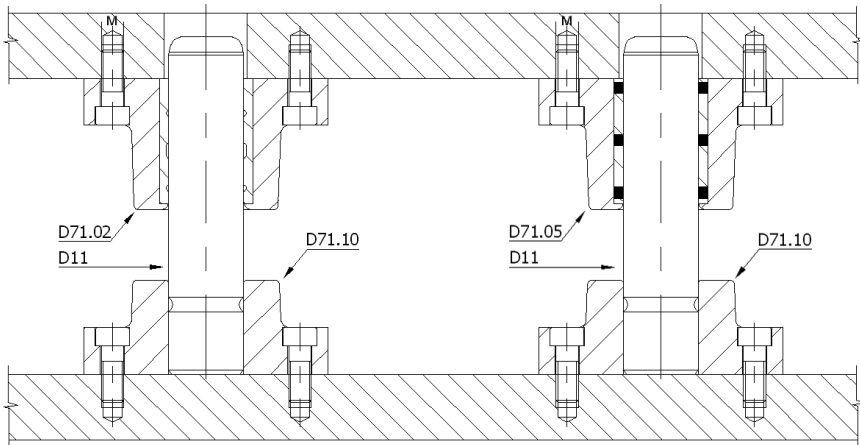
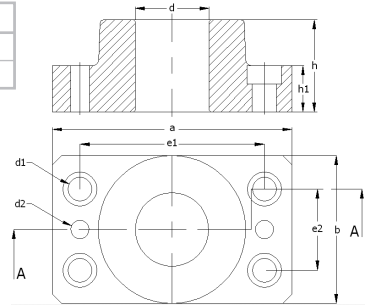
Kolon Sabitleme Bloğu / Pillar Bearing

Malzeme - Material: GG25



↓	∅								
Sipariş Kodu	d	d1	d2	h	h1	a	b	e1	e2
D71.10_40	40	13	10	50	25	130	75	100	44
50	50	13	10	70	25	155	90	125	60

∅d	M
40	12
50	12





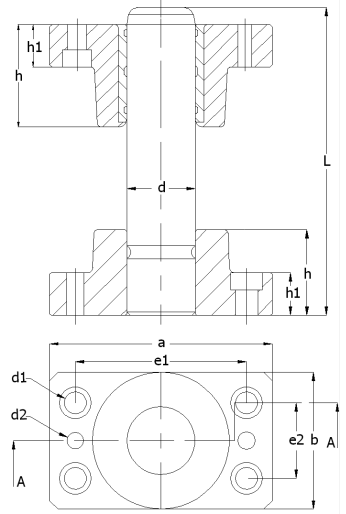
# D71.021

Bronzlu Döküm Set / Guide Bearing Set with Bronze

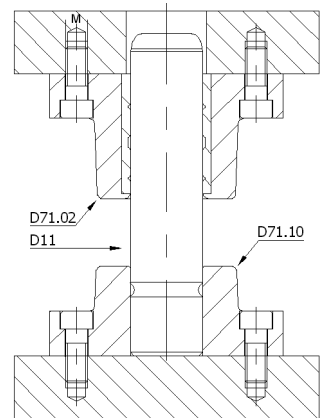
Malzeme - Material : GG25 / Bronze / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62±2 HRC  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)



Ø										
Sipariş Kodu	d	L	d1	d2	h	h1	a	b	e1	e2
D71.021_40160	40	160	13	10	70	25	130	75	100	44
180		180								
200		200								
225		225								
250		250								
280		280								
D71.10_40	40		13	10	50	25	130	75	100	44
D71.021_50160	50	160	13	10	85	25	155	90	125	60
180		180								
200		200								
225		225								
250		250								
280		280								
315		315								
D71.10_50	50		13	10	70	25	155	90	125	60



Ød	M
40	12
50	12



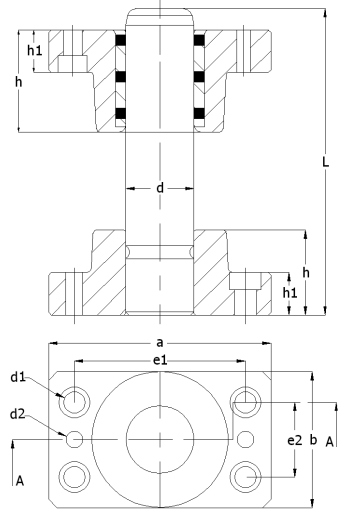
# D71.051

Grafitli Döküm Set / Guide Bearing Set Non-Lubricant

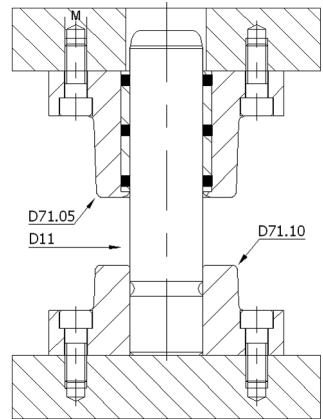
Malzeme - Material : GG25 / SAE 430B / Asil Çelik 1.1213 (Cf 53)  
 Sertlik - Hardness : 62± 2 HRC / HB≥180  
 Isil İşlem - Heat Treatment: Islah + İndüksiyon (Allowence + Induction)



Sipariş Kodu	Ø d	L	d1	d2	h	h1	a	b	e1	e2
D71.051_40160	40	160	13	10	70	25	130	75	100	44
180		180								
200		200								
225		225								
250		250								
280		280								
D71.10_40	40		13	10	50	25	130	75	100	44
D71.051_50160	50	160	13	10	85	25	155	90	125	60
180		180								
200		200								
225		225								
250		250								
280		280								
315		315								
D71.10_50	50		13	10	70	25	155	90	125	60



Ød	M
40	12
50	12



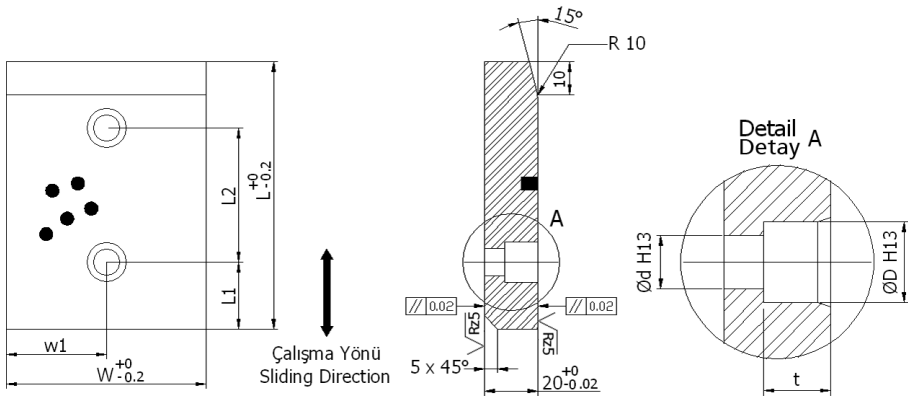
## D80.01

Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



Sipariş Kodu	VW/AUDI 39D863	FORD WDX 13-70	OPEL 3425	W	L	W1	L1	L2	ØD	Ød	t		
D80.01_5080	12			50	80	25	25	30	15	9	9		
100	13	02050100-Y	F33 04 0000		100			50				13.5	13
125	14		F33 04 0001		125			75					
160	15	02050160-Y	F33 04 0002		160			110					
200	16	02050200-Y	F33 04 0003		200			150					
D80.01_8080	22			80	80	40	25	30	20	13.5	13		
100	23	02080100-Y	F33 04 0004		100			50					
125	24		F33 04 0005		125			75					
160	25	02080160-Y	F33 04 0006		160			110					
200	26	02080200-Y	F33 04 0007		200			150					
250		02080250-Y			250		170	40					
315		02080315-Y			315		235						
D80.01_100100	33	02100100-Y	F33 04 0010	100	100	50	25	50	20	13.5	13		
125	34	02100125-Y	F33 04 0011		125			75					
160	35	02100160-Y	F33 04 0012		160			110					
200	36	02100200-Y	F33 04 0013		200			150					
250		02100250-Y			250			170				40	
315		02100315-Y			315		235						



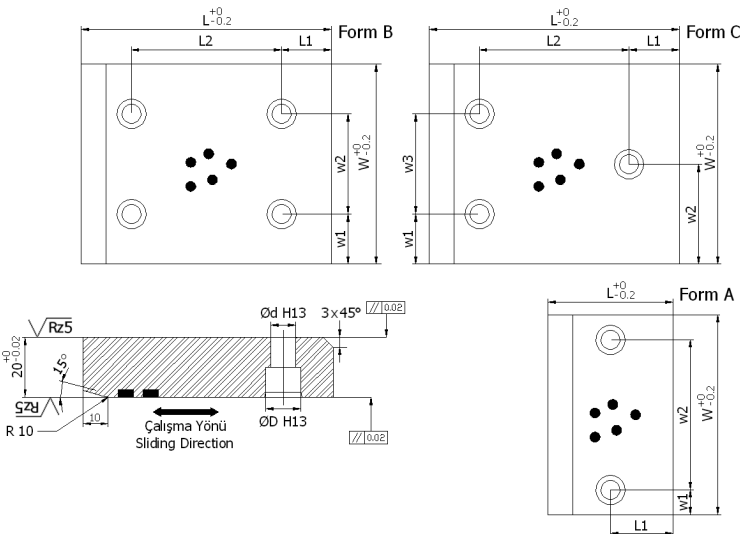
# D80.02

Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



Sipariş Kodu	VW/AUDI 39D863	FORD WDX 13-70	OPEL 3425	W	L	w1	w2	w3	L1	L2	ØD	Ød	t	Form
D80.02_8050	21			80	50	25	30		25		15	9	9	A
D80.02_10050	31	02100050-Y	F33 04 0008	100	50	25	50		25		20	13.5	13	A
	80		F33 04 0009	100	80				40					
D80.02_12550	41			125	50	25	75		25		20	13.5	13	A
	80		F33 04 0014	125	80				40					
	100	02125100-Y	F33 04 0015	125	100		62.5	75	25	50				C
	125		F33 04 0016	125	125					75				
	160	02125160-Y	F33 04 0017	125	160					110				
	200	02125200-Y		125	200					150				
	250	02125250-Y		125	250				40	170				
	315	02125315-Y		125	315					235				
D80.02_16050	51			160	50	25	110		25		20	13.5	13	A
	80			160	80				40					
	100	02160100-Y	F33 04 0018	160	100		80	110	25	50				C
	125		F33 04 0019	160	125					75				
	160	02160160-Y	F33 04 0020	160	160					110				
	200	02160200-Y		160	200					150				
	250	02160250-Y		160	250					170				B
	315	02160315-Y		160	315					235				



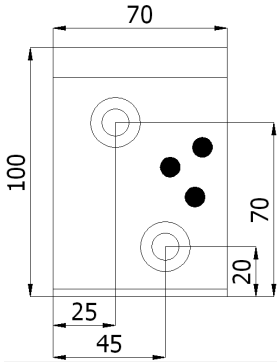
## D80.03

Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

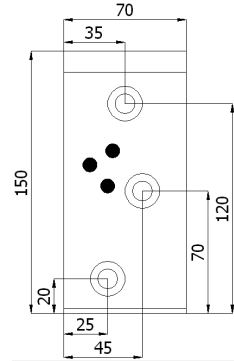
Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



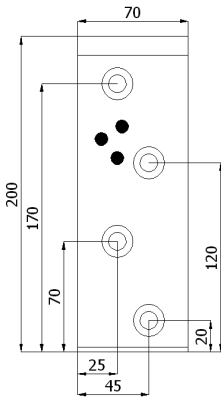
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_10070	Z000 166 214	R100 092 843



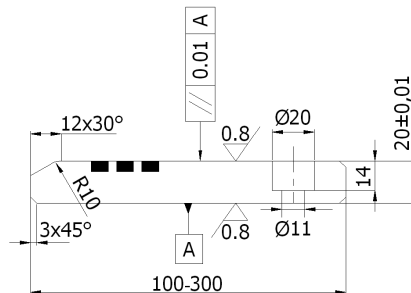
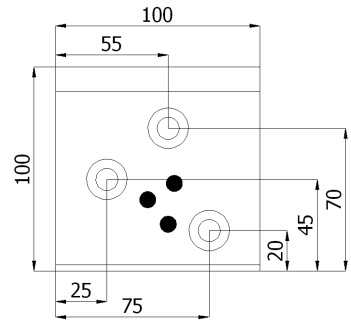
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_15070	Z000 166 216	R100 092 844



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_20070	Z000 166 221	R100 092 845



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_100100	Z000 166 215	R100 092 846



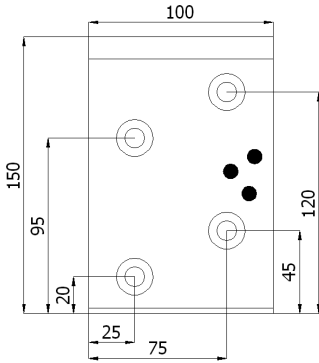
# D80.03

Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

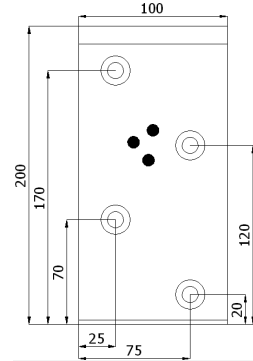
Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



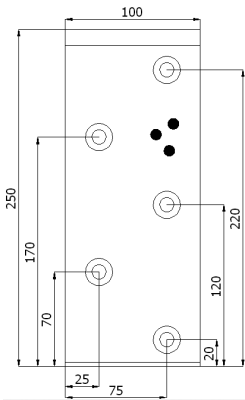
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_150100	Z000 166 217	R100 092 883



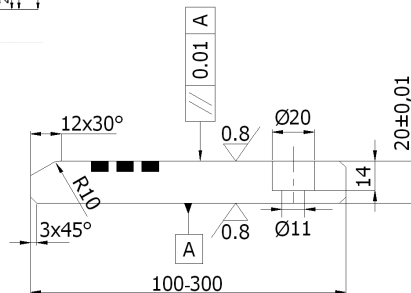
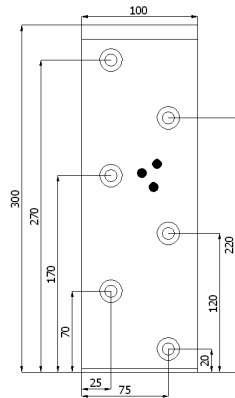
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_200100	Z000 166 222	R100 092 884



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_250100	Z000 166 225	R100 092 885



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_300100	Z000 166 227	R100 092 886



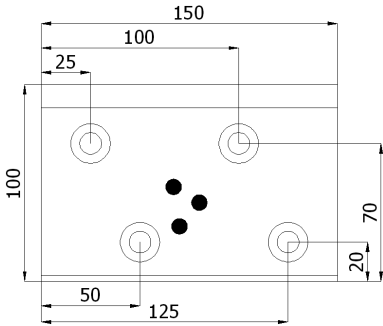
### D80.03

Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

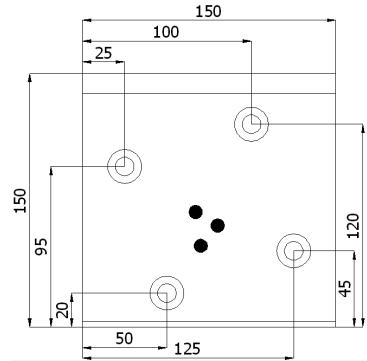
Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



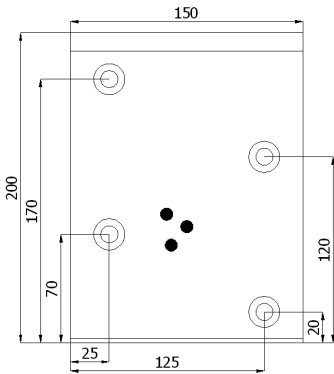
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_100150	Z000 166 218	R100 092 887



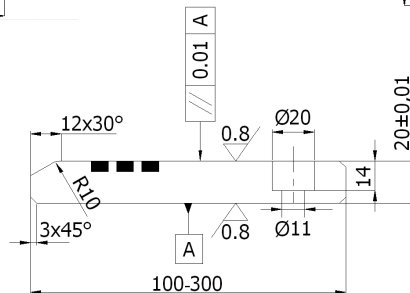
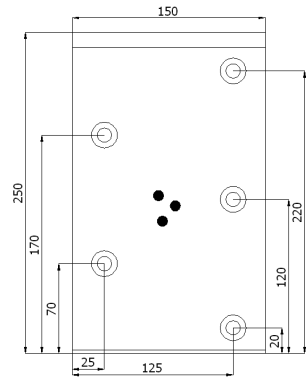
Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_150150	Z000 166 219	R100 092 888



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_200150	Z000 166 223	R100 092 890



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_250150	Z000 166 226	R100 092 893



# D80.03

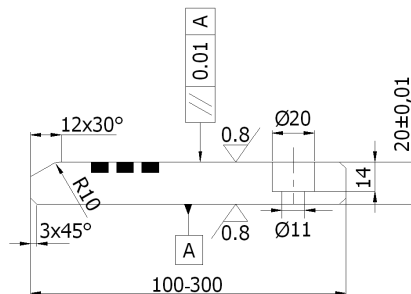
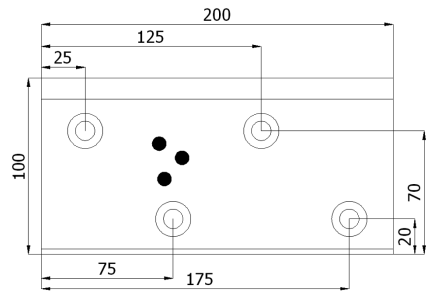
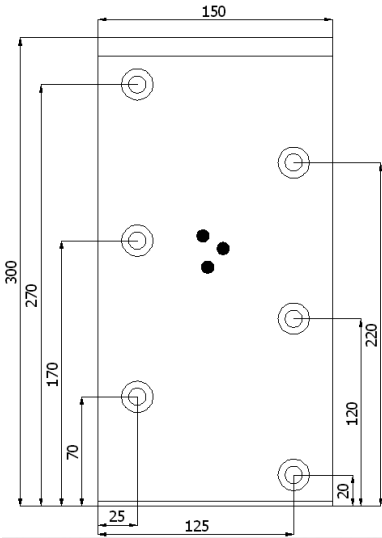
Grafitli Sürtünme Plakası  
Wear Plate With Graphite Insert

Malzeme - Material : SAE 430B  
Sertlik - Hardness : HB≥180



Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_300150	Z000 166 228	R100 092 894

Sipariş Kodu	PSA Mabec Code	RENAULT Mabec Code
D80.03_100200	Z000 166 224	R100 092 895





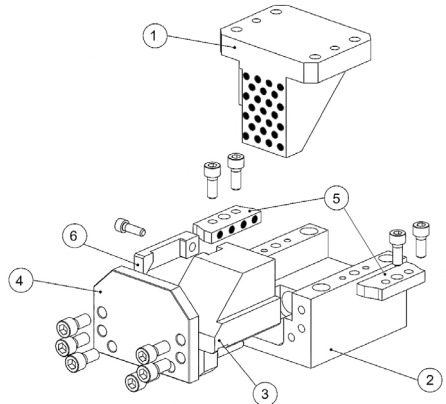
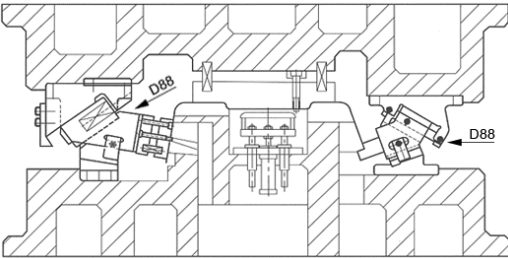
# D88

Düz Kam  
Horizontal Cam Slide Unit



No	Parça Adı / Description	Ad. Qty	Malzeme / Material	Not / Note
1	Üst Gövde / Upper Body	1	SO#50F	Grafittli Yüzey / Surface with Graphite
2	Alt Gövde / Lower Body	1	SO#50F	
3	Sürtücü / Driver	1	SO#50F	
4	Arka Kapak / Stoper Plate	1	Çelik / Steel 55-60 HRC	
5	Üst Yan Kapak / Upper Plate	2	Çelik / Steel	
6	Yan Klavuz Kol / Return Follower	1	Çelik / Steel 55-60 HRC	

Sipariş Kodu	Yay Ölçüleri Spring Size		İlk Durum Initial		Final		Zımba Alanı Space for Bunch B x H (mm)	Maksimum Çalışma Gücü Max. Working Force (kN)	Kurs Stroke (mm)	Ağırlık Weight (Kg)
	Ø Yay O.D. (mm)	Serbest Boy Free Length (mm)	Uzunluk Length (mm)	Yükleme Load (N)	Uzunluk Length	Yükleme Load (N)				
D88_5225	20	70	62	150	37	600	52x65	10	25	8
D88_5240	20	100	92	100	52	610	52x65	10	40	8
D88_5260	20	150	137	110	77	620	52x65	10	60	11 / 12
D88_6540	22	100	92	130	52	770	65x70	18	40	15
D88_6560	22	150	137	130	77	770	65x70	18	60	19
D88_10040	27	100	92	190	52	1150	100x100	30	40	32
D88_10060	27	150	137	210	77	1170	100x100	30	60	33 / 35
D88_10080	30	200	188	173	108	1325	100x100	30	80	38
D88_15040	35	100	92	320	52	1880	150x100	60	40	53
D88_15060	35	150	137	340	77	1900	150x100	60	60	57 / 58
D88_20040	35	100	92	470	52	2820	200x110	80	40	71
D88_20060	35	150	137	510	77	2850	200x110	80	60	76
D88_25040	40	100	92	620	52	3690	250x130	100	40	97
D88_25060	40	150	137	660	77	3720	250x130	100	60	105
D88_30040	40	100	92	620	52	3690	300x130	130	40	113
D88_30060	40	150	137	660	77	3720	300x130	130	60	120
D88_40060	60	150	148	156	88	4760	400x150	140	60	202
D88_50060	60	150	148	310	88	9520	500x150	140	60	236
D88_60060	60	150	148	310	88	9520	600x150	140	60	269



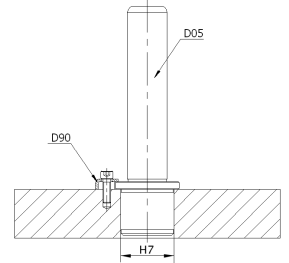
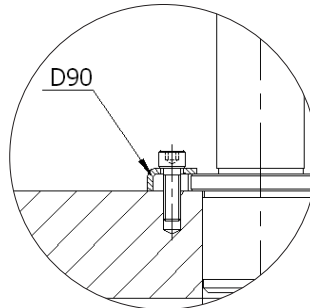
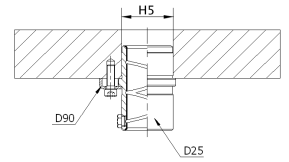
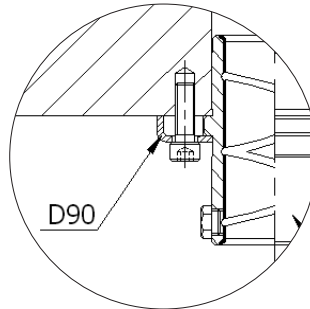
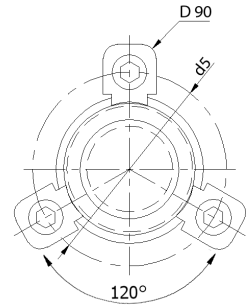
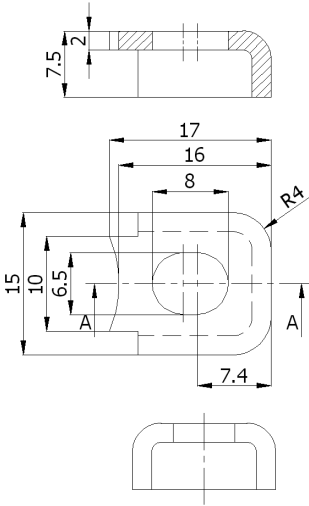
# D90

Bağlama Pabuç  
Pillar & Bush Clamp

Sertlik - Hardness : 40-42 HRC



A-A Kesiti



## Teknik Bilgiler

### Neden Kaymalı Sistemlerde Kolonlar için Cf 53 (1.1213) malzeme kullanıyoruz ?

- Karbon miktarı yüksektir. Dolayısıyla ısıtma işlemi esnasında yüksek sertliklere kolaylıkla ulaşabilir.
- Çekme kopma mukavemeti yüksektir. Darbeye daha dayanıklıdır.
- Sürtünmelere karşı yüksek aşınma dayanımı vardır.

### Neden Islahlı Malzeme?

Islah esnasında malzeme yaklaşık 30 HRc sertliğe kadar ulaşır. Daha sonraki indüksiyon işleminde ise 62 ±2 HRc yüzey sertliği elde edilir. Malzemenin çekirdek sertliği yüksek olduğu için yanılmalara karşı çok daha fazla mukavemetli olur.

### İndüksiyon Derinlikleri

Piyasada indüksiyon derinliğinin fazla olması ile kolonun daha dayanımlı olacağı konusunda büyük bir yanlışlık vardır. Tam tersine indüksiyon derinliği ne kadar dengeli olursa kırılma direnci karşı dayanım o kadar çok olur. Yılların verdiği tecrübe ve araştırmalarımız sonucunda elde ettiğimiz değerlere göre kolonlarımızda aşağıdaki çizelgede gösterilen indüksiyon derinliklerini uygulamaktayız.

Ø Çap	Derinlik mm
12 - 14	1,0 - 1,5
16 - 20	1,2 - 2,0
25 - 30	1,5 - 2,5
40 - 50	1,8 - 2,8
63 - 80	2 - 3

### Ürünlerimizin Kullanım Yerleri

Aşağıdaki tabloda ürünlerimizi ve bu ürünlerle beraber kullanabileceğiniz takımlar verilmiştir.

Plastik ve Metal Enjeksiyon Kalıpları		Sac Kalıpları	
Ürün	Takımı	Ürün	Takımı
D01	D22	D00	D23 / D24 / D25 / D26 / D27 / D28 / D30 / D31 / D32 / D33 / D60
D01D		D05	D23 / D24 / D25 / D26 / D30 / D31 / D32 / D33
D02	D20	D10	D70.01 / D70.02 / D70.03 / D70.04 / D70.05
D03	D21 / D40	D11	D71.02 / D71.05
D08	D22B	D12	D30.03
D09	D22B	D23	D00 / D05
D20	D02	D24	D00 / D05
D21	D03 / D40	D25	D00 / D05
D22	D01	D26	D00 / D05
D22B	D08 / D09	D27	D00 / D60
D40	D03 / D21	D28	D00 / D60
D50		D32	D00 / D05
		D33	D00 / D05
		D60	D00 / D27
		D80.01	
		D80.02	
		D80.03	
		D88	

## Teknik Bilgiler

### D70 - D71 Yeni Döküm Bloklarımız

Sac kesme ve form kalıplarının sökülüp takılma süresini azaltır. Kalıp üzerinde kolon ve burç delikleri açılmayacağından kalıbın yapım süresini kısaltarak işçilik maliyetlerini düşürür. Alt ve üst döküm blokların içine geçirilmiş burç ve pim takımından oluşur. Çelik geçme, bronz geçme, bilyalı ve sadece döküm gövdeden oluşan çeşitleri vardır.

### Yeni Konik Kilitleme

Çift taraflı bağlama özelliğinden dolayı daha hızlı montaj ve daha hassas ayar imkanı sağlamaktadır.

### Yeni Sinterli Burçlar

D32 - D33 kesme ve form kalıplarında merkezleme elemanı olarak kullanılır. Çalışmaya başlarken bir defa yağlanır, sonrasında yağlamaya ihtiyaç yoktur. İçerisindeki grafit özelliğinden dolayı kaygan bir yüzey oluşturur. Sarma riski yoktur.

### Bilyalı Sistemlerin Kullanım Alanları ve Uyarılar

- Erkek ve dişinin arasındaki kesme boşluğunun az olduğu hassas kalıplarda
- Dakikada baskı adedinin 200'ün üzerine çıktığı yerlerde
- Kesilen malzemenin 0,5 mm kalınlığının altına düştüğü durumlarda
- Enjeksiyon kalıplarının itici plakalarında kullanılır.

Bilyalı sistemler kullanılırken dikkat edilmesi gereken en önemli husus; kullanılan bilyaların toleransların çok dar olması gerekmektedir. Çünkü bilyalarda değişen her ölçü kolon ve burç çalışma toleransındaki hatayı ikiye katlar.

Biz bilyalarımızın tamamını +0,001 mm toleransında ithal ediyoruz. Dolayısıyla farklı bir bilya kafesinin bizim kolon ve burçlarımızla sağlıklı çalışmadığı yapılan testler neticesinde tespit edilmiştir.

### Kullandığımız Toleranslar Neye Göre Belirlenir?

Ürünlerimiz toleransları ve çalışma boşlukları DIN 7161'e göre belirlenmiştir. Fakat bu toleranslardaki değerler bazı ölçülerde bizi tatmin etmediği için daraltılmıştır. Kataloğumuzdaki görünen bu değerler DIN 7161'in tecrübelerimizle daraltılmış halleridir.

Yüzey pürüzlülüğünün önemi: Yüzey pürüzlülüğü birbirleriyle çalışan parçalar açısından en önemli konulardan birisidir. Bir örnek verecek olursak; bozuk yolda ilerleyen bir araba ile düzgün yolda ilerleyen arabanın ilerlemesi arasındaki fark gibi...

Biz ürünlerimizin uzun ömürlü ve aşınmaya karşı maksimum dayanımlı olması için yüzey pürüzlülüğüne çok önem veriyoruz.

Kolonların çalışma yüzeylerindeki pürüzlülüğü Rz 1,5 ve altı, diğer yüzeylerde ise Rz 3 olarak standartlaştırdık.

Unutulmamalıdır ki düşük değerdeki yüzey pürüzlülüğü ürünün ömrünü uzatır, korozyona karşı dayanımını artırır ve sürtünmenin çok düşük seviyelere inmesiyle mükemmel çalışma şartı sağlar.

## Teknik Bilgiler

### Kullanıcılara Tavsiyeler

Dikkat edilmesi gereken en önemli konulardan biri de kolon ve burçların yerlerine montajdır. Kesinlikle montaj esnasında **sıkı çakma** yapılmamalıdır. Bu hem kolon ve burçlarda hasar meydana getirir, hem de taşlanmış oturma yüzeyleri bozulacağı için diklik elde etmek çok güçleşir. Kolon ve burçlar uygun toleranslarda yerlerine takılıp **bağlama papuçları** vasıtasıyla sabitlenmelidir. Bu şekilde bağlama doğrusallığın ve dikliğın sağlanabilmesi ve malzemelerin uzun ömürlü olabilmesi için en doğru yöntemdir.

Piyasada sıkça yapılan hatalardan birisi de yağ kanalı olmayan 2 ürünün bir arada kullanılmasıdır. Kullanılan ürünlerin bir tanesinde kesinlikle yağ kanalı olmalıdır. Aksi taktirde yüzeyde yağ filmi oluşmadığı için kısa sürede ısınmalar meydana gelmekte ve birbirlerini sarmaya başlayacaklardır.

Kolon ve burçlar satın alınırken her ikisinin de aynı marka olmasına azami dikkat gösterilmelidir. Çünkü farklı kolon ve burçlarda farklı taşıma toleransları olabileceğinden hem montaj hem de kullanım esnasında büyük problemler yaşanabilir.

### Yaptığınız işte en iyisi olmak kolay değildir.

Bilindiği gibi etrafımızdaki bir çok şey seri üretim yani kalıp ürünüdür. Bu nedenle yaşam kalitemizi arttırmak için özgün düşünce ürünü tasarımların yanı sıra bu tasarımları başarıyla hayata geçirecek kaliteli kalıp ve kalıp elemanlarına ihtiyacımız olduğu da açıktır.

Ülkemizde ilk kalıp elemanları üreticisi olan firmamız ISO 9001:2000 sertifikası, yaklaşık %70'lik yurtiçi pazar payı, yıllık 700.000 adetlik üretim kapasitesi ve Avrupa'nın sayılı firmalarına yaptığı giderek artan ihracatı ile kalitesini yurt içinde ve dışında kanıtlamıştır. Ürünlerimiz son teknolojik makinelerimizde, tecrübeli personelimiz ve sektördeki her türlü yeniliği takip ederek ürünlerimizin kalitesini devamlı artıran idari kadromuzla hedefimiz dünya piyasasında da söz sahibi bir firma olmaktır.

Başardıklarımızdan aldığımız cesaretle bu hedefimize de ulaşacağımıza inanıyoruz.

### DİKKAT

- DELTA, kataloğundaki ürün çeşit ve toleranslarında değişiklik yapma hakkını saklı tutar.
- Ürünlerimizin ambalaj ömrü yaklaşık 2 yıldır.
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