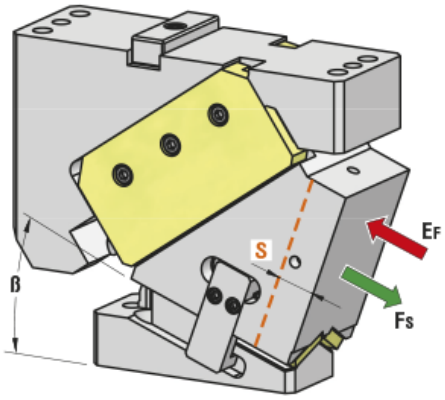
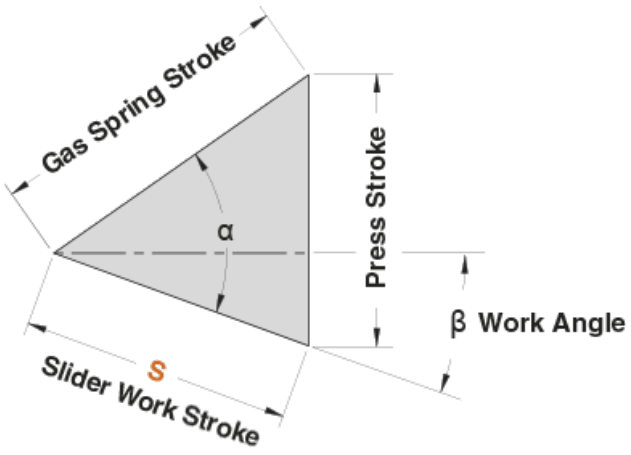
## 1. CAM DIAGRAM




| OMCR CODE | Work Angle β | Slider Work Stroke S (mm) | Press Stroke (mm) | Gas Spring Stroke (mm) | α - β | α |
|---|---|---|---|---|---|---|
| **CHV085.00** | 0° | 30,85 | 36,77 | 48 | 50° | 50° |
| **CHV085.05** | 5° | 34,07 | 36,91 | 48 | 45° | 50° |
| **CHV085.10** | 10° | 34,46 | 39,93 | 48 | 45° | 55° |
| **CHV085.15** | 15° | 38,07 | 40,71 | 48 | 40° | 55° |
| **CHV085.20** | 20° | 41,84 | 41,84 | 48 | 35° | 55° |
| **CHV085.25** | 25° | 43,38 | 45,87 | 48 | 35° | 60° |
| **CHV085.30** | 30° | 48,00 | 48,00 | 48 | 30° | 60° |
| **CHV085.35** | 35° | 50,75 | 53,11 | 48 | 30° | 65° |
| **CHV085.40** | 40° | 56,79 | 56,79 | 48 | 25° | 65° |
| **CHV085.45** | 45° | 42,30 | 43,85 | 33 | 25° | 70° |
| **CHV085.50** | 50° | 48,24 | 48,24 | 33 | 20° | 70° |
| **CHV085.55** | 55° | 54,06 | 55,57 | 33 | 20° | 75° |
| **CHV085.60** | 60° | 63,75 | 63,75 | 33 | 15° | 75° |
| **CHV085.65** | 65° | 75,42 | 76,90 | 33 | 15° | 80° |
| **CHV085.70** | 70° | 95,02 | 95,02 | 33 | 10° | 80° |
| **CHV085.75** | 75° | 95,13 | 96,23 | 25 | 10° | 85° |

## 2. WORK FORCE DISTRIBUTION (kN) FOR 1 MILLION CYCLES

*The following diagrams illustrate the maximum possible ranges of camforce appliable in several portions of the work area but always working in the exact direction of slider work stroke. If several forces are applied simultaneously on the work area, their common center has to be specified and compared with the tabular infos. The sum of all forces has to be lower than the corresponding tabular value.*

**Fs** *Max Work Force with shoulder*

**Fk** *Max Work Force with fitting keys*

### Assembly with shoulder

| β=0° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 49 | 129 | 49 |
| | 20 | 69 | 180 | 69 |
| | 20 | 88 | **230** | 88 |
| | 20 | 63 | 165 | 63 |
| | 20 | 38 | 99 | 38 |

| β=5° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 49 | 128 | 49 |
| | 20 | 68 | 179 | 68 |
| | 20 | 88 | **230** | 88 |
| | 20 | 63 | 166 | 63 |
| | 20 | 39 | 101 | 39 |

| β=10° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 48 | 127 | 48 |
| | 20 | 68 | 178 | 68 |
| | 20 | 87 | **230** | 87 |
| | 20 | 63 | 167 | 63 |
| | 20 | 40 | 104 | 40 |

### Assembly with fitting keys

| β=0° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 30 | 90 | 30 |
| | 20 | 41 | 126 | 41 |
| | 20 | 53 | **161** | 53 |
| | 20 | 38 | 115 | 38 |
| | 20 | 23 | 69 | 23 |

| β=5° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 29 | 89 | 29 |
| | 20 | 41 | 125 | 41 |
| | 20 | 53 | **161** | 53 |
| | 20 | 38 | 116 | 38 |
| | 20 | 23 | 71 | 23 |

| β=10° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 29 | 89 | 29 |
| | 20 | 41 | 125 | 41 |
| | 20 | 52 | **161** | 52 |
| | 20 | 38 | 117 | 38 |
| | 20 | 24 | 72 | 24 |

## Assembly with shoulder

| β=15° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 47 | 126 | 47 |
| | 20 | 67 | 178 | 67 |
| | 20 | 87 | **230** | 87 |
| | 20 | 64 | 168 | 64 |
| | 20 | 40 | 106 | 40 |

| β=20° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 47 | 125 | 47 |
| | 20 | 67 | 177 | 67 |
| | 20 | 86 | **230** | 86 |
| | 20 | 64 | 170 | 64 |
| | 20 | 41 | 108 | 41 |

| β=25° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 46 | 123 | 46 |
| | 20 | 66 | 176 | 66 |
| | 20 | 86 | **229** | 86 |
| | 20 | 64 | 171 | 64 |
| | 20 | 42 | 111 | 42 |

| β=30° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 46 | 122 | 46 |
| | 20 | 66 | 176 | 66 |
| | 20 | 85 | **229** | 85 |
| | 20 | 64 | 172 | 64 |
| | 20 | 43 | 113 | 43 |

## Assembly with fitting keys

| β=15° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 28 | 88 | 28 |
| | 20 | 40 | 124 | 40 |
| | 20 | 52 | **161** | 52 |
| | 20 | 38 | 118 | 38 |
| | 20 | 24 | 74 | 24 |

| β=20° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 28 | 87 | 28 |
| | 20 | 40 | 124 | 40 |
| | 20 | 52 | **161** | 52 |
| | 20 | 38 | 119 | 38 |
| | 20 | 25 | 76 | 25 |

| β=25° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 28 | 86 | 28 |
| | 20 | 40 | 124 | 40 |
| | 20 | 52 | **161** | 52 |
| | 20 | 38 | 120 | 38 |
| | 20 | 25 | 77 | 25 |

| β=30° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 27 | 86 | 27 |
| | 20 | 39 | 123 | 39 |
| | 20 | 51 | **160** | 51 |
| | 20 | 38 | 120 | 38 |
| | 20 | 26 | 79 | 26 |

## Assembly with shoulder

| β=35° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 45 | 121 | 45 |
| | 20 | 65 | 175 | 65 |
| | 20 | 85 | **229** | 85 |
| | 20 | 64 | 173 | 64 |
| | 20 | 44 | 118 | 44 |

| β=40° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 43 | 119 | 43 |
| | 20 | 63 | 178 | 63 |
| | 20 | 84 | **237** | 84 |
| | 20 | 63 | 178 | 63 |
| | 20 | 42 | 119 | 42 |

| β=45° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 40 | 116 | 40 |
| | 20 | 61 | 181 | 61 |
| | 20 | 82 | **245** | 82 |
| | 20 | 62 | 183 | 62 |
| | 20 | 41 | 121 | 41 |

| β=50° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 38 | 114 | 38 |
| | 20 | 60 | 183 | 60 |
| | 20 | 81 | **253** | 81 |
| | 20 | 61 | 188 | 61 |
| | 20 | 40 | 123 | 40 |

## Assembly with fitting keys

| β=35° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 27 | 85 | 27 |
| | 20 | 39 | 123 | 39 |
| | 20 | 51 | **160** | 51 |
| | 20 | 39 | 121 | 39 |
| | 20 | 26 | 82 | 26 |

| β=40° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 27 | 88 | 27 |
| | 20 | 40 | 131 | 40 |
| | 20 | 53 | **175** | 53 |
| | 20 | 40 | 131 | 40 |
| | 20 | 27 | 88 | 27 |

| β=45° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 25 | 86 | 25 |
| | 20 | 39 | 133 | 39 |
| | 20 | 52 | **181** | 52 |
| | 20 | 39 | 135 | 39 |
| | 20 | 26 | 89 | 26 |

| β=50° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 24 | 84 | 24 |
| | 20 | 38 | 135 | 38 |
| | 20 | 51 | **187** | 51 |
| | 20 | 38 | 139 | 38 |
| | 20 | 25 | 91 | 25 |

## Assembly with shoulder

| β=55° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 35 | 111 | 35 |
| | 20 | 58 | 186 | 58 |
| | 20 | 80 | **261** | 80 |
| | 20 | 59 | 193 | 59 |
| | 20 | 39 | 125 | 39 |

| β=60° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 33 | 108 | 33 |
| | 20 | 56 | 189 | 56 |
| | 20 | 79 | **269** | 79 |
| | 20 | 58 | 198 | 58 |
| | 20 | 37 | 126 | 37 |

| β=65° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 31 | 106 | 31 |
| | 20 | 54 | 192 | 54 |
| | 20 | 77 | **277** | 77 |
| | 20 | 57 | 203 | 57 |
| | 20 | 36 | 128 | 36 |

| β=70° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 28 | 103 | 28 |
| | 20 | 52 | 194 | 52 |
| | 20 | 76 | **285** | 76 |
| | 20 | 56 | 208 | 56 |
| | 20 | 35 | 130 | 35 |

## Assembly with fitting keys

| β=55° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 22 | 94 | 22 |
| | 20 | 36 | 158 | 36 |
| | 20 | 51 | **222** | 51 |
| | 20 | 37 | 164 | 37 |
| | 20 | 24 | 106 | 24 |

| β=60° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 21 | 92 | 21 |
| | 20 | 35 | 160 | 35 |
| | 20 | 50 | **229** | 50 |
| | 20 | 37 | 168 | 37 |
| | 20 | 24 | 107 | 24 |

| β=65° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 20 | 98 | 20 |
| | 20 | 36 | 178 | 36 |
| | 20 | 52 | **258** | 52 |
| | 20 | 38 | 189 | 38 |
| | 20 | 24 | 119 | 24 |

| β=70° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 19 | 103 | 19 |
| | 20 | 35 | 194 | 35 |
| | 20 | 51 | **285** | 51 |
| | 20 | 37 | 208 | 37 |
| | 20 | 23 | 130 | 23 |

### Assembly with shoulder

| β=75° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 26 | 101 | 26 |
| | 20 | 50 | 197 | 50 |
| | 20 | 75 | **293** | 75 |
| | 20 | 54 | 212 | 54 |
| | 20 | 34 | 132 | 34 |

### Assembly with fitting keys

| β=75° | | WIDTH | | |
|---|---|---|---|---|
| | | 32,5 | 20 | 32,5 |
| HEIGHT | 20 | 17 | 101 | 17 |
| | 20 | 34 | 197 | 34 |
| | 20 | 50 | **293** | 50 |
| | 20 | 36 | 212 | 36 |
| | 20 | 22 | 132 | 22 |