

Stoßdämpfer · Shock Absorbers

Amortisseurs · Deceleratori · Amortiguadores



D

| | |
|-----------------------------|--|
| Hohe Energieaufnahme | bis zu 11520 kNm/h |
| Dämpfung | WS-M: selbsteinstellend WE-M: einstellbar |
| Lange Lebensdauer | Kolbenstange hartverchromt & gehärtet Gehäuse verzinkt |
| Temperaturbereich | -20°C - +80°C |
| Optional | Niedrigere oder höhere Aufprallgeschwindigkeiten Niedrigere oder höhere Temperaturen |

GB

| | |
|---|--|
| High energy absorption up to 11520 kNm/h | |
| Deceleration | WS-M: self-compensating WE-M: adjustable |
| Extended Life Time | Piston rod: hardened / hard chrome-plated Housing: zinc plated |
| Temperature range | -20°C - +80°C |
| Optional | Lower or higher impact speed Lower or higher temperatures |

F

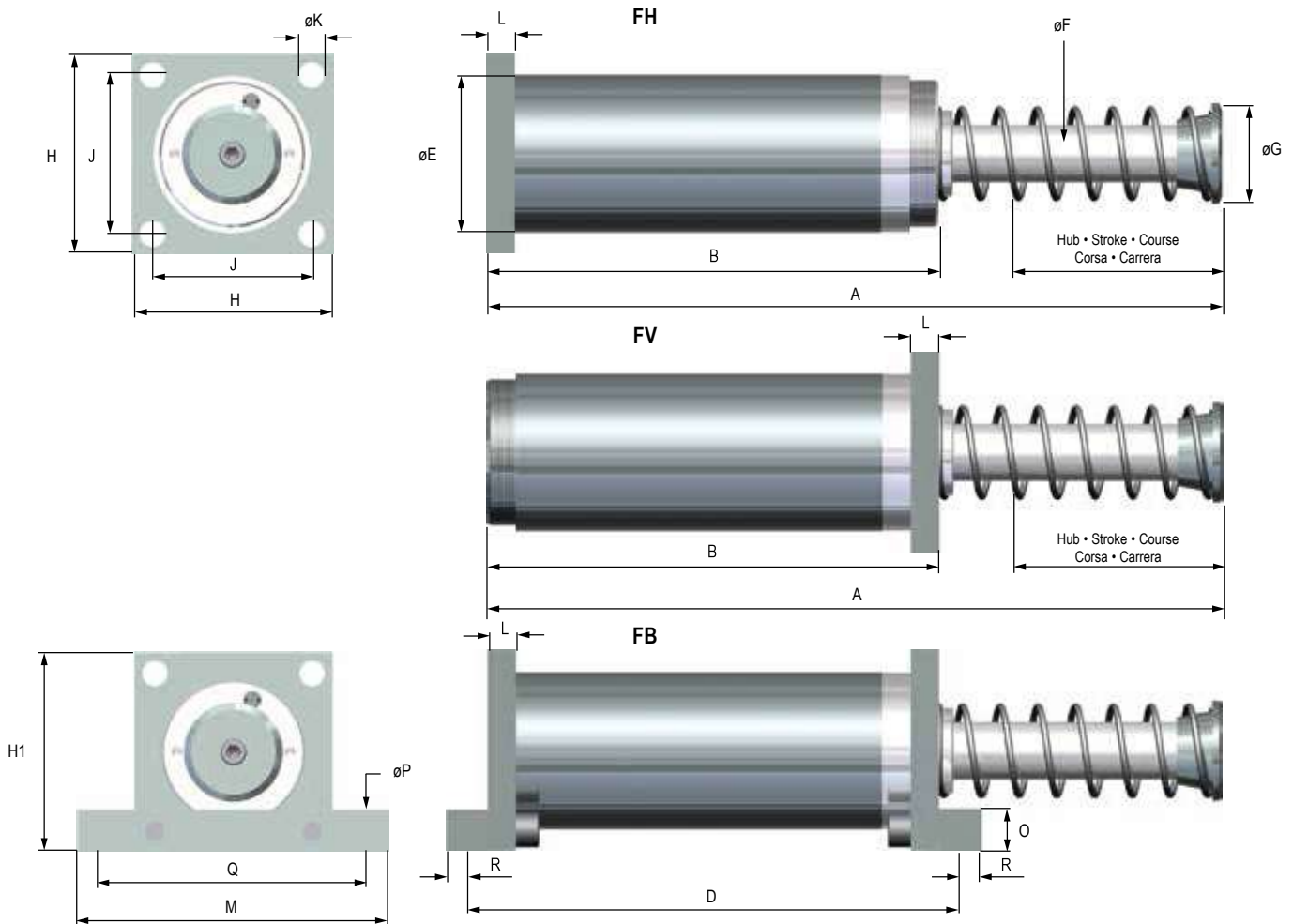
| | |
|---|---|
| Absorption d'énergie élevé jusqu'à 11520 kNm/h | |
| Décélération | WS-M: auto-compensé WE-M: réglable |
| Longévité | Tige de piston: trempé / acier chromé dur Corps: acier zingué |
| Températures | -20°C - +80°C |
| En option | Vitesse d'impact inférieure ou supérieure Températures inférieures ou supérieures |

I

| | |
|--|---|
| Alto assorbimento di energia fino a 11520 kNm/h | |
| Smorzamento | WS-M: auto-compensante WE-M: regolabile |
| Lunga durata | Stelo del pistone: temprato / acciaio cromato Corpo: acciaio zincato |
| Temperatura | -20°C - +80°C |
| Opzionale | Velocità d'impatto inferiore o superiore Temperature inferiori o superiori |

E

| | |
|--|--|
| Absorción de energía elevada de hasta 11520 kNm/h | |
| Amortiguación | WS-M: auto-compensado WE-M: regulable |
| Larga vida útil | Vástago del émbolo: cromado duro / templado Carcasa: galvanizada |
| Temperaturas | -20°C - +80°C |
| Opcional | Velocidad de impacto bajo o más alto Temperaturas más bajas o más altas |



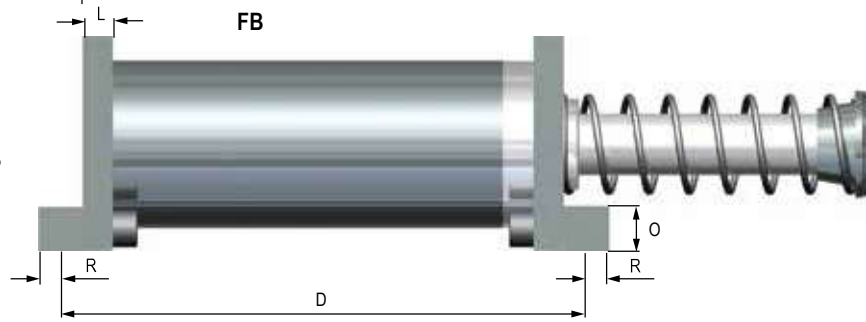
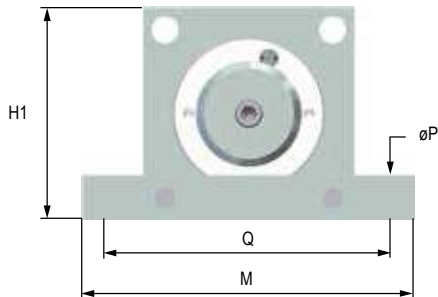
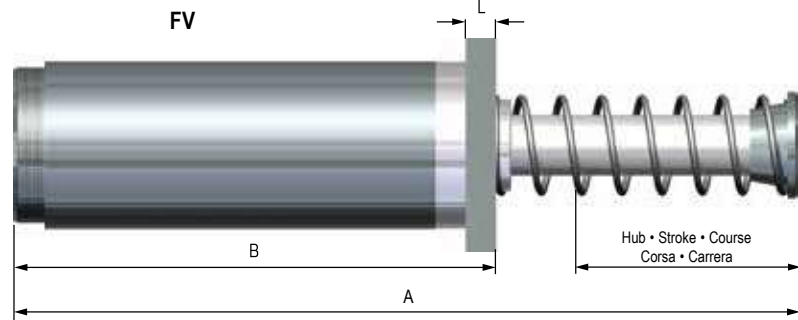
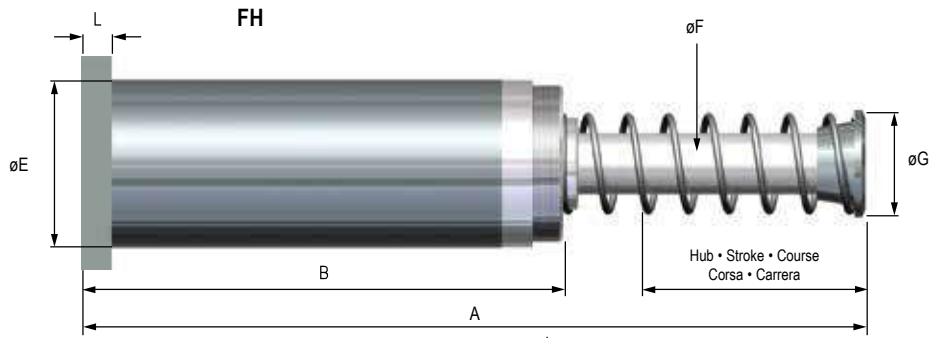
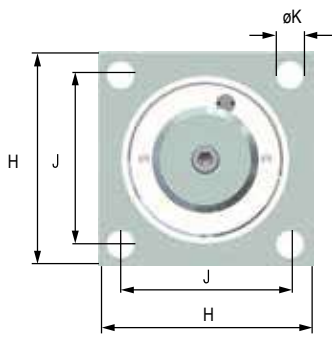
Festanschlag 2 – 3 mm vor Hubende vorsehen • End stop required 2 – 3 mm before the stroke ends • Butée de fin de course nécessaire 2-3 mm avant la fin de course
 Fine corsa richiesta 2 – 3 mm prima che la corsa finisca • Tope fijo requerido 2-3 mm antes de que termine la carrera

ABMESSUNGEN - DIMENSIONS - DIMENSIONI - DIMENSIONES

| | A | B | D | øE | øF | øG | H | J | øK | L | M | H1 | O | øP | Q | R | Gewicht - Weight Poids - Peso - Peso |
|--------------|-----|-----|-----|-----|----|----|-----|-----|----|----|-----|-----|----|----|-----|----|---|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kg |
| WS-M 5,0-050 | 313 | 214 | 244 | 110 | 40 | 70 | 140 | 111 | 18 | 20 | 220 | 140 | 30 | 18 | 178 | 15 | 14 |
| WS-M 5,0-100 | 414 | 262 | 292 | 110 | 40 | 70 | 140 | 111 | 18 | 20 | 220 | 140 | 30 | 18 | 178 | 15 | 16 |
| WS-M 5,0-150 | 516 | 317 | 347 | 110 | 40 | 70 | 140 | 111 | 18 | 20 | 220 | 140 | 30 | 18 | 178 | 15 | 18 |
| WS-M 5,0-200 | 648 | 361 | 391 | 110 | 40 | 70 | 140 | 111 | 18 | 20 | 220 | 140 | 30 | 18 | 178 | 15 | 20 |
| WS-M 5,0-250 | 750 | 413 | 443 | 110 | 40 | 70 | 140 | 111 | 18 | 20 | 220 | 140 | 30 | 18 | 178 | 15 | 24 |

LEISTUNGEN - PERFORMANCE - CARATTERISTICHE TECNICHE - CARACTERÍSTICAS TÉCNICAS

| | Hub Stroke Course Corsa Carrera | Energieaufnahme Energy absorption Energie d'absorption Assorbimento d'energia Absorción de energía | | Effektive Masse - Effective mass - Masse effective Massa efectiva - Masa efectiva | | | | | | | | Aufprallgeschwindigkeit Impact Speed Vitesse d'impact Velocità d'impatto Velocidad de impacto | Rückholfederkraft Return spring force Force du ressort Forza di ritorno Fuerza del muelle recuperador |
|--------------|---|--|----------------|--|---------|-------------|---------|-----------|---------|----------------|---------|---|---|
| | | Nm / HB (max.) | Nm/h (max.) | -1 (soft) | | -2 (medium) | | -3 (hard) | | -4 (very hard) | | | |
| | mm | | | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | | |
| WS-M 5,0-050 | 50 | 4000 | 1200000 | 690 | 2470 | 2000 | 5555 | 4730 | 14220 | 12500 | 39500 | 0,3 - 3,4 | 100 - 400 |
| WS-M 5,0-100 | 100 | 8000 | 1520000 | 1380 | 4930 | 4000 | 11110 | 9460 | 28440 | 25000 | 79000 | 0,3 - 3,4 | 100 - 400 |
| WS-M 5,0-150 | 150 | 11000 | 1650000 | 1900 | 6790 | 5500 | 15280 | 13000 | 39110 | 34375 | 108640 | 0,3 - 3,4 | 100 - 400 |
| WS-M 5,0-200 | 200 | 15000 | 1950000 | 2595 | 9260 | 7500 | 20830 | 17750 | 53330 | 46875 | 148150 | 0,3 - 3,4 | 100 - 400 |
| WS-M 5,0-250 | 250 | 19000 | 2280000 | 3290 | 11730 | 9500 | 26390 | 22485 | 67555 | 59375 | 187650 | 0,3 - 3,4 | 100 - 400 |



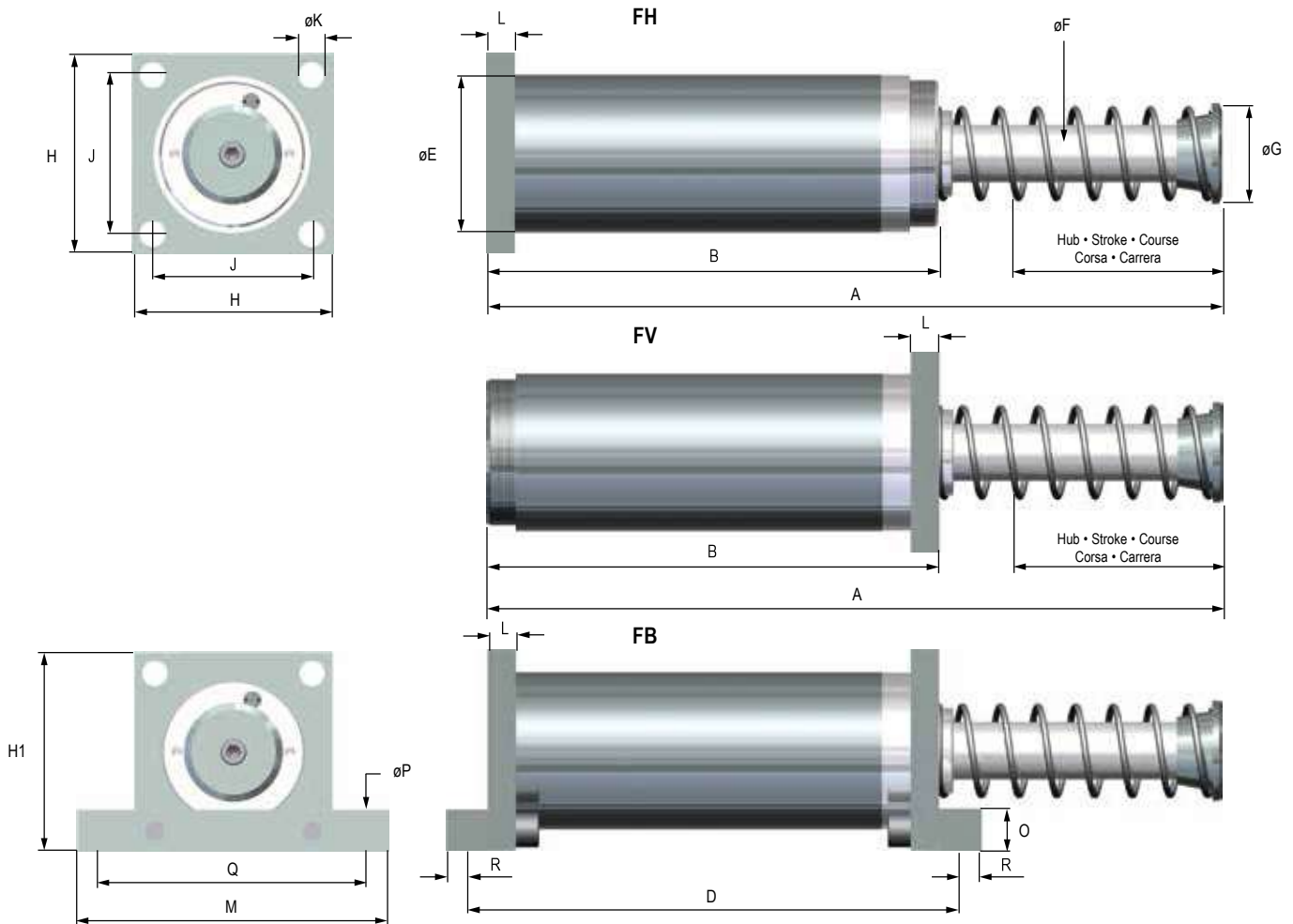
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ABMESSUNGEN - DIMENSIONS - DIMENSIONI - DIMENSIONES

| | A | B | D | øE | øF | øG | H | J | øK | L | M | H1 | O | øP | Q | R | Gewicht - Weight Poids - Peso Peso |
|--------------|-----|-----|-----|-----|----|----|-----|-----|----|----|-----|-----|----|----|-----|----|--|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kg |
| WS-M 7,5-125 | 490 | 301 | 333 | 130 | 45 | 80 | 170 | 125 | 22 | 20 | 255 | 160 | 40 | 22 | 216 | 24 | 29 |
| WS-M 7,5-200 | 641 | 376 | 408 | 130 | 45 | 80 | 170 | 125 | 22 | 20 | 255 | 160 | 40 | 22 | 216 | 24 | 34 |
| WS-M 7,5-300 | 895 | 471 | 503 | 130 | 45 | 80 | 170 | 125 | 22 | 20 | 255 | 160 | 40 | 22 | 216 | 24 | 41 |

LEISTUNGEN - PERFORMANCE - CARATTERISTICHE TECNICHE - CARACTERÍSTICAS TÉCNICAS

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|--------------|---|--|---|---------|-------------|---------|-----------|---------|----------------|---------|---|---|-----------|
| | | | -1 (soft) | | -2 (medium) | | -3 (hard) | | -4 (very hard) | | | | |
| | mm | Nm / HB (max.) | Nm/h (max.) | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | m/s | N |
| WS-M 7,5-125 | 125 | 16000 | 2560000 | 2770 | 9870 | 8000 | 22200 | 18935 | 56880 | 50000 | 158025 | 0,3 - 3,4 | 200 - 450 |
| WS-M 7,5-200 | 200 | 25000 | 4000000 | 4325 | 15430 | 12500 | 34720 | 29585 | 88880 | 78125 | 246910 | 0,3 - 3,4 | 200 - 450 |
| WS-M 7,5-300 | 300 | 37000 | 5920000 | 6400 | 22840 | 18500 | 51390 | 43790 | 131555 | 115625 | 365430 | 0,3 - 3,4 | 200 - 450 |



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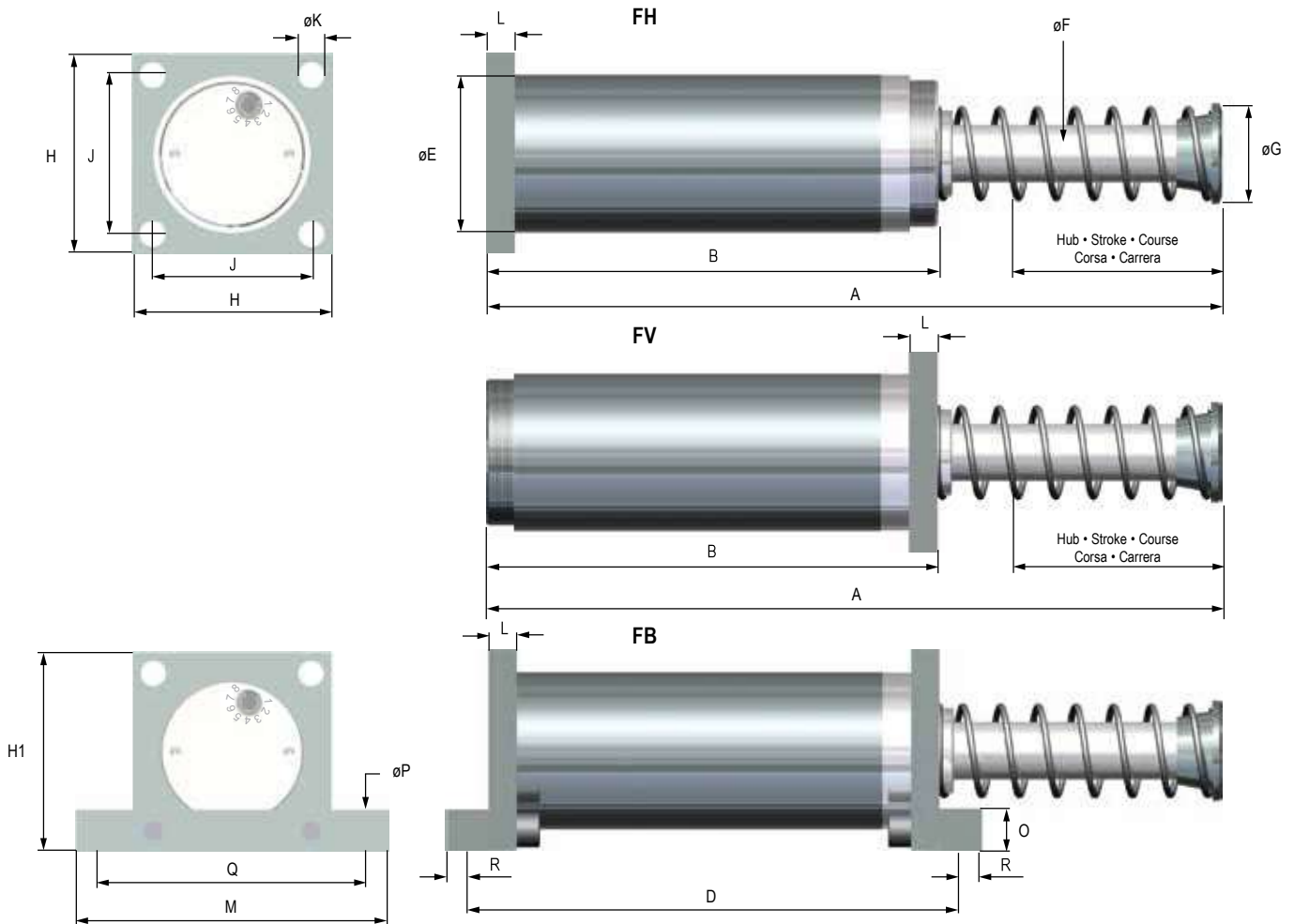
ABMESSUNGEN • DIMENSIONS • DIMENSIONI • DIMENSIONES

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|---------------|------|-----|-----|-----|----|-----|-----|-----|----|----|-----|-----|----|----|-----|----|--|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kg |
| WS-M 10,0-150 | 716 | 434 | 484 | 200 | 65 | 112 | 250 | 197 | 22 | 40 | 360 | 254 | 50 | 27 | 317 | 25 | 60 |
| WS-M 10,0-200 | 818 | 536 | 586 | 200 | 65 | 112 | 250 | 197 | 22 | 40 | 360 | 254 | 50 | 27 | 317 | 25 | 68 |
| WS-M 10,0-400 | 1300 | 733 | 783 | 200 | 65 | 112 | 250 | 197 | 22 | 40 | 360 | 254 | 50 | 27 | 317 | 25 | 146 |

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| | mm | Nm / HB (max.) | Nm/h (max.) | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | min. kg | max. kg | | | | |
| WS-M 10,0-150 | 150 | 50000 | 3150000 | 3500 | 9180 | 8650 | 18900 | 17360 | 44440 | - | - | 0,3 - 5,0 | 350 - 900 | | |
| WS-M 10,0-200 | 200 | 65000 | 3575000 | 4630 | 11930 | 11250 | 24570 | 22570 | 57700 | - | - | 0,3 - 5,0 | 350 - 900 | | |
| WS-M 10,0-400 | 400 | 128000 | 11520000 | 9115 | 23500 | 22145 | 48395 | 44440 | 113770 | - | - | 0,3 - 5,0 | 350 - 900 | | |

Mega-Line WE-M 5,0



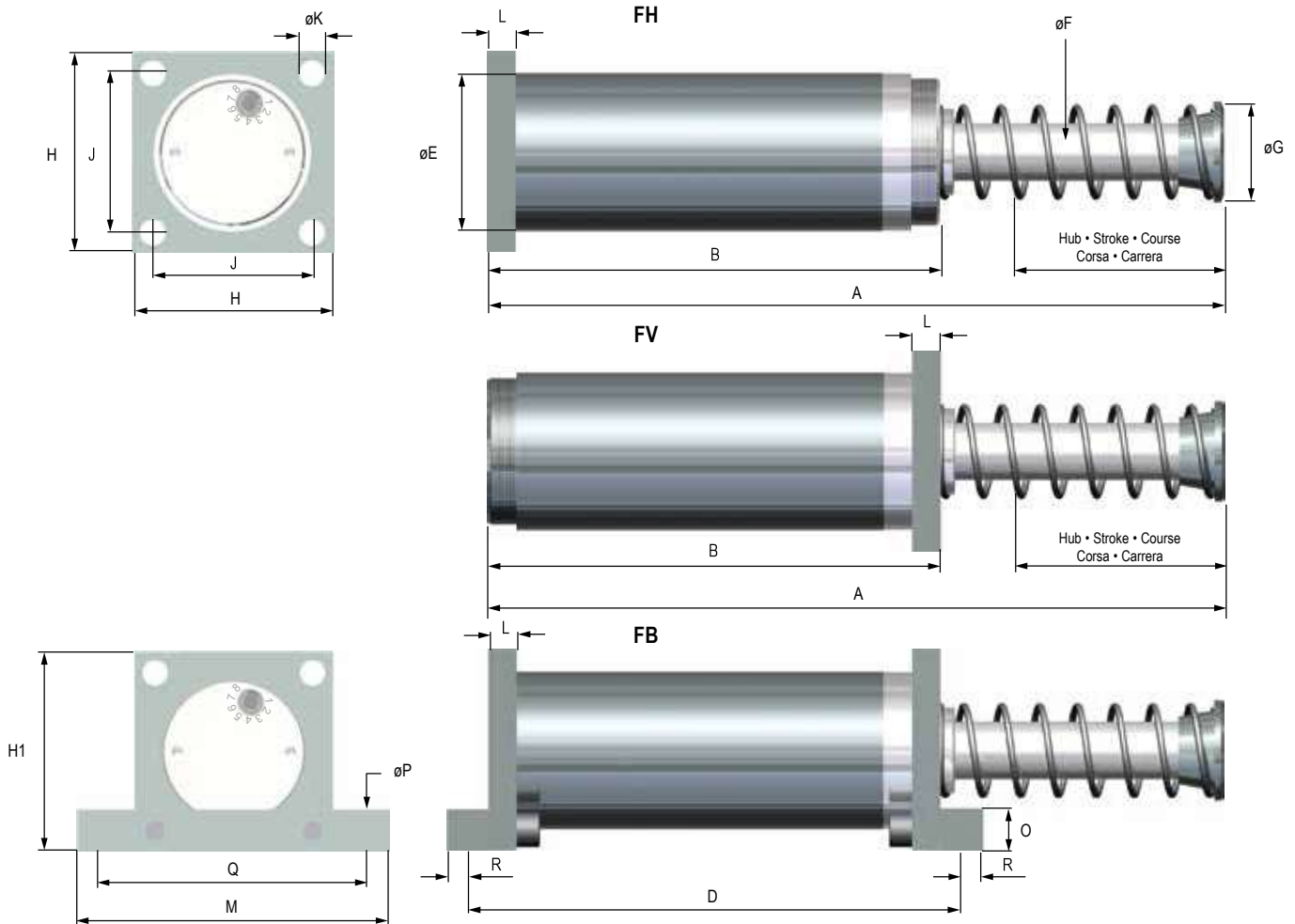
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| WE-M 5,0-100 | 100 | 9000 1350000 | 280 72000 | 100 - 400 |
| WE-M 5,0-150 | 150 | 14000 1680000 | 430 78000 | 100 - 400 |
| WE-M 5,0-200 | 200 | 20000 2000000 | 625 111000 | 100 - 400 |
| WE-M 5,0-250 | 250 | 24000 1920000 | 750 133300 | 100 - 400 |



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| WE-M 7,5-200 | 200 | 28000 3640000 | 875 2765 2240 224000 | 200 - 450 |
| WE-M 7,5-300 | 300 | 44000 5280000 | 1375 4345 3520 244000 | 200 - 450 |