

### Właściwości

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wykonanie</b>           | without mounting elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Ciśnienie robocze</b>   | maks. 200 bar (wg DIN EN 982)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Ciśnienie kontrolne</b> | maks. 240 bar (wg DIN EN 982)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Zakres temperatury</b>  | wykonanie standardowe -15 °C do +80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Czynniki robocze</b>    | Płyny HLP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Materiał</b>            | Tłoczyisko stal 20MnV6 chrom 25 mikronów +/- 5<br>tłoczyisko 120 godzin wytrzymałości w teście NSS wg ISO 3768<br>Prowadnica tłoczyiska: stal 9SMn28<br>Króciec przyłączeniowy oleju: stal 9SMn28<br>Polerowana rura walcowa: ST 52.3 DIN 2393-ISO H9<br>Denko cylindra: FE 510-A105<br>Nakrętka: stal 8UNI EN20898/2<br>Uszczelka TPM: NBR<br>Tłok: stal 9SMn28<br>Uszczelka OR: NBR Fluorosil Viton<br>Uszczelka TSE-TTS-TTI/L: NBR + tkanina / poliuretan<br>Uszczelka GHM-GHK: NBR / poliuretan |



### Wskazówka

prędkość tłoka dla uszczeltek standardowych: maks. 25m/min. - 0,42m/sek.

prędkość tłoka w położeniach krańcowych: maks. 6m/min. - 0,10m/sek.

For these standard cylinders, it is recommended not to weld any fastenings to the cylinder liner (e.g. cardan mountings) as this could distort it.

### Opis

Our hydraulic cylinders and their components are designed for standard applications in industry and agriculture. They can be used only in some circumstances for applications in construction machinery. If this is your intention, please contact our technical personnel. The cylinders conform to the technical specifications in the catalogue or are designed to customers' specifications (approval drawing).

Przy doborze, przetwarzaniu i stosowaniu cylindrów przestrzegać wymagań normy EN ISO 4413 Wymagania bezpieczeństwa technicznego w instalacjach hydraulicznych i ich częściach - oraz ustaleń i wymagań bezpieczeństwa wynikających z przepisów ustawowych.

### Artykuł

| Oznaczenie       | Ø D (mm) | Ø A (mm) | Ø S (mm) | Skok (mm) | Z (mm) | C (mm) | E      | L (mm) | L1 (mm) | Ciężar (kg) |
|------------------|----------|----------|----------|-----------|--------|--------|--------|--------|---------|-------------|
| HK HM 01 20 0100 | 50       | 40       | 20       | 100       | 230    | 22,0   | G 1/4" | 40     | 23      | 2,27        |
| HK HM 01 20 0150 | 50       | 40       | 20       | 150       | 280    | 22,0   | G 1/4" | 40     | 23      | 2,67        |
| HK HM 01 20 0200 | 50       | 40       | 20       | 200       | 330    | 22,0   | G 1/4" | 40     | 23      | 3,05        |
| HK HM 01 20 0250 | 50       | 40       | 20       | 250       | 380    | 22,0   | G 1/4" | 40     | 23      | 3,45        |
| HK HM 01 20 0300 | 50       | 40       | 20       | 300       | 430    | 22,0   | G 1/4" | 40     | 23      | 3,85        |
| HK HM 01 20 0350 | 50       | 40       | 20       | 350       | 480    | 22,0   | G 1/4" | 40     | 23      | 4,27        |
| HK HM 01 20 0400 | 50       | 40       | 20       | 400       | 530    | 22,0   | G 1/4" | 40     | 23      | 4,65        |
| HK HM 01 20 0450 | 50       | 40       | 20       | 450       | 580    | 22,0   | G 1/4" | 40     | 23      | 5,08        |
| HK HM 01 20 0500 | 50       | 40       | 20       | 500       | 630    | 22,0   | G 1/4" | 40     | 23      | 5,49        |
| HK HM 01 25 0100 | 50       | 40       | 25       | 100       | 230    | 22,0   | G 1/4" | 40     | 23      | 2,75        |
| HK HM 01 25 0150 | 50       | 40       | 25       | 150       | 280    | 22,0   | G 1/4" | 40     | 23      | 2,95        |
| HK HM 01 25 0200 | 50       | 40       | 25       | 200       | 330    | 22,0   | G 1/4" | 40     | 23      | 3,39        |
| HK HM 01 25 0250 | 50       | 40       | 25       | 250       | 380    | 22,0   | G 1/4" | 40     | 23      | 3,85        |
| HK HM 01 25 0300 | 50       | 40       | 25       | 300       | 430    | 22,0   | G 1/4" | 40     | 23      | 4,32        |
| HK HM 01 25 0350 | 50       | 40       | 25       | 350       | 480    | 22,0   | G 1/4" | 40     | 23      | 4,79        |
| HK HM 01 25 0400 | 50       | 40       | 25       | 400       | 530    | 22,0   | G 1/4" | 40     | 23      | 5,26        |
| HK HM 01 25 0450 | 50       | 40       | 25       | 450       | 580    | 22,0   | G 1/4" | 40     | 23      | 5,72        |
| HK HM 01 25 0500 | 50       | 40       | 25       | 500       | 630    | 22,0   | G 1/4" | 40     | 23      | 6,20        |
| HK HM 01 25 0550 | 50       | 40       | 25       | 550       | 680    | 22,0   | G 1/4" | 40     | 23      | 6,60        |
| HK HM 01 25 0600 | 50       | 40       | 25       | 600       | 730    | 22,0   | G 1/4" | 40     | 23      | 7,13        |
| HK HM 02 25 0100 | 60       | 50       | 25       | 100       | 240    | 22,0   | G 3/8" | 43     | 26      | 3,29        |
| HK HM 02 25 0150 | 60       | 50       | 25       | 150       | 290    | 22,0   | G 3/8" | 43     | 26      | 3,83        |
| HK HM 02 25 0200 | 60       | 50       | 25       | 200       | 340    | 22,0   | G 3/8" | 43     | 26      | 4,34        |
| HK HM 02 25 0250 | 60       | 50       | 25       | 250       | 390    | 22,0   | G 3/8" | 43     | 26      | 4,85        |
| HK HM 02 25 0300 | 60       | 50       | 25       | 300       | 440    | 22,0   | G 3/8" | 43     | 26      | 5,35        |
| HK HM 02 25 0350 | 60       | 50       | 25       | 350       | 490    | 22,0   | G 3/8" | 43     | 26      | 5,94        |



## Artykuł

| Oznaczenie       | Ø D (mm) | Ø A (mm) | Ø S (mm) | Skok (mm) | Z (mm) | C (mm) | E      | L (mm) | L1 (mm) | Ciężar (kg) |
|------------------|----------|----------|----------|-----------|--------|--------|--------|--------|---------|-------------|
| HK HM 02 25 0400 | 60       | 50       | 25       | 400       | 540    | 22,0   | G 3/8" | 43     | 26      | 6,40        |
| HK HM 02 25 0450 | 60       | 50       | 25       | 450       | 590    | 22,0   | G 3/8" | 43     | 26      | 7,30        |
| HK HM 02 25 0500 | 60       | 50       | 25       | 500       | 640    | 22,0   | G 3/8" | 43     | 26      | 7,43        |
| HK HM 02 25 0550 | 60       | 50       | 25       | 550       | 690    | 22,0   | G 3/8" | 43     | 26      | 8,06        |
| HK HM 02 25 0600 | 60       | 50       | 25       | 600       | 740    | 22,0   | G 3/8" | 43     | 26      | 8,46        |
| HK HM 02 25 0800 | 60       | 50       | 25       | 800       | 940    | 22,0   | G 3/8" | 43     | 26      | 10,71       |
| HK HM 02 25 1000 | 60       | 50       | 25       | 1000      | 1140   | 22,0   | G 3/8" | 43     | 26      | 12,87       |
| HK HM 02 30 0150 | 60       | 50       | 30       | 150       | 290    | 22,0   | G 3/8" | 43     | 26      | 4,11        |
| HK HM 02 30 0200 | 60       | 50       | 30       | 200       | 340    | 22,0   | G 3/8" | 43     | 26      | 4,74        |
| HK HM 02 30 0250 | 60       | 50       | 30       | 250       | 390    | 22,0   | G 3/8" | 43     | 26      | 5,35        |
| HK HM 02 30 0300 | 60       | 50       | 30       | 300       | 440    | 22,0   | G 3/8" | 43     | 26      | 5,97        |
| HK HM 02 30 0350 | 60       | 50       | 30       | 350       | 490    | 22,0   | G 3/8" | 43     | 26      | 6,55        |
| HK HM 02 30 0400 | 60       | 50       | 30       | 400       | 540    | 22,0   | G 3/8" | 43     | 26      | 7,20        |
| HK HM 02 30 0450 | 60       | 50       | 30       | 450       | 590    | 22,0   | G 3/8" | 43     | 26      | 7,80        |
| HK HM 02 30 0500 | 60       | 50       | 30       | 500       | 640    | 22,0   | G 3/8" | 43     | 26      | 8,42        |
| HK HM 02 30 0550 | 60       | 50       | 30       | 550       | 690    | 22,0   | G 3/8" | 43     | 26      | 9,04        |
| HK HM 02 30 0600 | 60       | 50       | 30       | 600       | 740    | 22,0   | G 3/8" | 43     | 26      | 9,64        |
| HK HM 02 30 0800 | 60       | 50       | 30       | 800       | 940    | 22,0   | G 3/8" | 43     | 26      | 12,10       |
| HK HM 02 30 1000 | 60       | 50       | 30       | 1000      | 1140   | 22,0   | G 3/8" | 43     | 26      | 14,57       |
| HK HM 03 30 0100 | 70       | 60       | 30       | 100       | 260    | 23,0   | G 3/8" | 50     | 30      | 4,82        |
| HK HM 03 30 0150 | 70       | 60       | 30       | 150       | 310    | 23,0   | G 3/8" | 50     | 30      | 5,55        |
| HK HM 03 30 0200 | 70       | 60       | 30       | 200       | 360    | 23,0   | G 3/8" | 50     | 30      | 6,20        |
| HK HM 03 30 0250 | 70       | 60       | 30       | 250       | 410    | 23,0   | G 3/8" | 50     | 30      | 6,87        |
| HK HM 03 30 0300 | 70       | 60       | 30       | 300       | 460    | 23,0   | G 3/8" | 50     | 30      | 7,55        |
| HK HM 03 30 0350 | 70       | 60       | 30       | 350       | 510    | 23,0   | G 3/8" | 50     | 30      | 8,20        |
| HK HM 03 30 0400 | 70       | 60       | 30       | 400       | 560    | 23,0   | G 3/8" | 50     | 30      | 8,90        |
| HK HM 03 30 0450 | 70       | 60       | 30       | 450       | 610    | 23,0   | G 3/8" | 50     | 30      | 9,53        |
| HK HM 03 30 0500 | 70       | 60       | 30       | 500       | 660    | 23,0   | G 3/8" | 50     | 30      | 10,25       |
| HK HM 03 30 0550 | 70       | 60       | 30       | 550       | 710    | 23,0   | G 3/8" | 50     | 30      | 10,83       |
| HK HM 03 30 0600 | 70       | 60       | 30       | 600       | 760    | 23,0   | G 3/8" | 50     | 30      | 11,60       |
| HK HM 03 30 0800 | 70       | 60       | 30       | 800       | 960    | 23,0   | G 3/8" | 50     | 30      | 14,26       |
| HK HM 03 30 1000 | 70       | 60       | 30       | 1000      | 1160   | 23,0   | G 3/8" | 50     | 30      | 17,00       |
| HK HM 03 35 0100 | 70       | 60       | 35       | 100       | 260    | 23,0   | G 3/8" | 50     | 30      | 5,07        |
| HK HM 03 35 0150 | 70       | 60       | 35       | 150       | 310    | 23,0   | G 3/8" | 50     | 30      | 5,85        |
| HK HM 03 35 0200 | 70       | 60       | 35       | 200       | 360    | 23,0   | G 3/8" | 50     | 30      | 6,60        |
| HK HM 03 35 0250 | 70       | 60       | 35       | 250       | 410    | 23,0   | G 3/8" | 50     | 30      | 7,40        |
| HK HM 03 35 0300 | 70       | 60       | 35       | 300       | 460    | 23,0   | G 3/8" | 50     | 30      | 8,15        |
| HK HM 03 35 0350 | 70       | 60       | 35       | 350       | 510    | 23,0   | G 3/8" | 50     | 30      | 8,94        |
| HK HM 03 35 0400 | 70       | 60       | 35       | 400       | 560    | 23,0   | G 3/8" | 50     | 30      | 9,72        |
| HK HM 03 35 0450 | 70       | 60       | 35       | 450       | 610    | 23,0   | G 3/8" | 50     | 30      | 10,47       |
| HK HM 03 35 0500 | 70       | 60       | 35       | 500       | 660    | 23,0   | G 3/8" | 50     | 30      | 11,25       |
| HK HM 03 35 0550 | 70       | 60       | 35       | 550       | 710    | 23,0   | G 3/8" | 50     | 30      | 12,00       |
| HK HM 03 35 0600 | 70       | 60       | 35       | 600       | 760    | 23,0   | G 3/8" | 50     | 30      | 12,81       |
| HK HM 03 35 0800 | 70       | 60       | 35       | 800       | 960    | 23,0   | G 3/8" | 50     | 30      | 15,87       |
| HK HM 03 35 1000 | 70       | 60       | 35       | 1000      | 1160   | 23,0   | G 3/8" | 50     | 30      | 18,93       |
| HK HM 03 40 0200 | 70       | 60       | 40       | 200       | 360    | 23,0   | G 3/8" | 50     | 30      | 7,25        |
| HK HM 03 40 0250 | 70       | 60       | 40       | 250       | 410    | 23,0   | G 3/8" | 50     | 30      | 8,14        |
| HK HM 03 40 0300 | 70       | 60       | 40       | 300       | 460    | 23,0   | G 3/8" | 50     | 30      | 9,03        |
| HK HM 03 40 0350 | 70       | 60       | 40       | 350       | 510    | 23,0   | G 3/8" | 50     | 30      | 9,90        |
| HK HM 03 40 0400 | 70       | 60       | 40       | 400       | 560    | 23,0   | G 3/8" | 50     | 30      | 10,79       |
| HK HM 03 40 0450 | 70       | 60       | 40       | 450       | 610    | 23,0   | G 3/8" | 50     | 30      | 11,64       |
| HK HM 03 40 0500 | 70       | 60       | 40       | 500       | 660    | 23,0   | G 3/8" | 50     | 30      | 12,52       |
| HK HM 03 40 0550 | 70       | 60       | 40       | 550       | 710    | 23,0   | G 3/8" | 50     | 30      | 13,45       |
| HK HM 03 40 0600 | 70       | 60       | 40       | 600       | 760    | 23,0   | G 3/8" | 50     | 30      | 14,30       |
| HK HM 03 40 0800 | 70       | 60       | 40       | 800       | 960    | 23,0   | G 3/8" | 50     | 30      | 17,82       |
| HK HM 03 40 1000 | 70       | 60       | 40       | 1000      | 1160   | 23,0   | G 3/8" | 50     | 30      | 21,40       |
| HK HM 04 30 0200 | 80       | 70       | 30       | 200       | 360    | 23,0   | G 3/8" | 50     | 33      | 7,50        |
| HK HM 04 35 0100 | 80       | 70       | 35       | 100       | 260    | 23,0   | G 3/8" | 50     | 33      | 6,09        |



## Artykuł

| Oznaczenie       | Ø D (mm) | Ø A (mm) | Ø S (mm) | Skok (mm) | Z (mm) | C (mm) | E      | L (mm) | L1 (mm) | Ciężar (kg) |
|------------------|----------|----------|----------|-----------|--------|--------|--------|--------|---------|-------------|
| HK HM 04 35 0150 | 80       | 70       | 35       | 150       | 310    | 23,0   | G 3/8" | 50     | 33      | 6,95        |
| HK HM 04 35 0200 | 80       | 70       | 35       | 200       | 360    | 23,0   | G 3/8" | 50     | 33      | 7,74        |
| HK HM 04 35 0250 | 80       | 70       | 35       | 250       | 410    | 23,0   | G 3/8" | 50     | 33      | 8,60        |
| HK HM 04 35 0300 | 80       | 70       | 35       | 300       | 460    | 23,0   | G 3/8" | 50     | 33      | 9,40        |
| HK HM 04 35 0350 | 80       | 70       | 35       | 350       | 510    | 23,0   | G 3/8" | 50     | 33      | 10,26       |
| HK HM 04 35 0400 | 80       | 70       | 35       | 400       | 560    | 23,0   | G 3/8" | 50     | 33      | 11,00       |
| HK HM 04 35 0450 | 80       | 70       | 35       | 450       | 610    | 23,0   | G 3/8" | 50     | 33      | 11,88       |
| HK HM 04 35 0500 | 80       | 70       | 35       | 500       | 660    | 23,0   | G 3/8" | 50     | 33      | 12,60       |
| HK HM 04 35 0550 | 80       | 70       | 35       | 550       | 710    | 23,0   | G 3/8" | 50     | 33      | 13,66       |
| HK HM 04 35 0600 | 80       | 70       | 35       | 600       | 760    | 23,0   | G 3/8" | 50     | 33      | 14,20       |
| HK HM 04 35 0800 | 80       | 70       | 35       | 800       | 960    | 23,0   | G 3/8" | 50     | 33      | 17,56       |
| HK HM 04 35 1000 | 80       | 70       | 35       | 1000      | 1160   | 23,0   | G 3/8" | 50     | 33      | 21,26       |
| HK HM 04 40 0100 | 80       | 70       | 40       | 100       | 260    | 23,0   | G 3/8" | 50     | 33      | 8,20        |
| HK HM 04 40 0200 | 80       | 70       | 40       | 200       | 360    | 23,0   | G 3/8" | 50     | 33      | 8,20        |
| HK HM 04 40 0250 | 80       | 70       | 40       | 250       | 410    | 23,0   | G 3/8" | 50     | 33      | 9,26        |
| HK HM 04 40 0300 | 80       | 70       | 40       | 300       | 460    | 23,0   | G 3/8" | 50     | 33      | 10,24       |
| HK HM 04 40 0350 | 80       | 70       | 40       | 350       | 510    | 23,0   | G 3/8" | 50     | 33      | 11,20       |
| HK HM 04 40 0400 | 80       | 70       | 40       | 400       | 560    | 23,0   | G 3/8" | 50     | 33      | 12,80       |
| HK HM 04 40 0450 | 80       | 70       | 40       | 450       | 610    | 23,0   | G 3/8" | 50     | 33      | 13,11       |
| HK HM 04 40 0500 | 80       | 70       | 40       | 500       | 660    | 23,0   | G 3/8" | 50     | 33      | 14,01       |
| HK HM 04 40 0550 | 80       | 70       | 40       | 550       | 710    | 23,0   | G 3/8" | 50     | 33      | 15,10       |
| HK HM 04 40 0600 | 80       | 70       | 40       | 600       | 760    | 23,0   | G 3/8" | 50     | 33      | 15,99       |
| HK HM 04 40 0800 | 80       | 70       | 40       | 800       | 960    | 23,0   | G 3/8" | 50     | 33      | 19,73       |
| HK HM 04 40 1000 | 80       | 70       | 40       | 1000      | 1160   | 23,0   | G 3/8" | 50     | 33      | 23,51       |
| HK HM 05 40 0200 | 92       | 80       | 40       | 200       | 380    | 25,0   | G 1/2" | 60     | 35      | 11,08       |
| HK HM 05 40 0250 | 92       | 80       | 40       | 250       | 430    | 25,0   | G 1/2" | 60     | 35      | 12,22       |
| HK HM 05 40 0300 | 92       | 80       | 40       | 300       | 480    | 25,0   | G 1/2" | 60     | 35      | 13,36       |
| HK HM 05 40 0400 | 92       | 80       | 40       | 400       | 580    | 25,0   | G 1/2" | 60     | 35      | 15,56       |
| HK HM 05 40 0500 | 92       | 80       | 40       | 500       | 680    | 25,0   | G 1/2" | 60     | 35      | 17,77       |
| HK HM 05 40 0600 | 92       | 80       | 40       | 600       | 780    | 25,0   | G 1/2" | 60     | 35      | 19,98       |
| HK HM 05 40 0800 | 92       | 80       | 40       | 800       | 980    | 25,0   | G 1/2" | 60     | 35      | 24,50       |
| HK HM 05 40 1000 | 92       | 80       | 40       | 1000      | 1180   | 25,0   | G 1/2" | 60     | 35      | 29,03       |
| HK HM 05 50 0200 | 92       | 80       | 50       | 200       | 380    | 25,0   | G 1/2" | 60     | 35      | 12,35       |
| HK HM 05 50 0250 | 92       | 80       | 50       | 250       | 430    | 25,0   | G 1/2" | 60     | 35      | 13,73       |
| HK HM 05 50 0300 | 92       | 80       | 50       | 300       | 480    | 25,0   | G 1/2" | 60     | 35      | 15,15       |
| HK HM 05 50 0400 | 92       | 80       | 50       | 400       | 580    | 25,0   | G 1/2" | 60     | 35      | 17,93       |
| HK HM 05 50 0500 | 92       | 80       | 50       | 500       | 680    | 25,0   | G 1/2" | 60     | 35      | 20,71       |
| HK HM 05 50 0600 | 92       | 80       | 50       | 600       | 780    | 25,0   | G 1/2" | 60     | 35      | 23,49       |
| HK HM 05 50 0800 | 92       | 80       | 50       | 800       | 980    | 25,0   | G 1/2" | 60     | 35      | 29,50       |
| HK HM 05 50 1000 | 92       | 80       | 50       | 1000      | 1180   | 25,0   | G 1/2" | 60     | 35      | 35,00       |
| HK HM 06 50 0200 | 115      | 100      | 50       | 200       | 410    | 25,0   | G 1/2" | 82     | 38      | 19,50       |
| HK HM 06 50 0250 | 115      | 100      | 50       | 250       | 460    | 25,0   | G 1/2" | 82     | 38      | 21,50       |
| HK HM 06 50 0300 | 115      | 100      | 50       | 300       | 510    | 25,0   | G 1/2" | 82     | 38      | 23,00       |
| HK HM 06 50 0400 | 115      | 100      | 50       | 400       | 610    | 25,0   | G 1/2" | 82     | 38      | 26,50       |
| HK HM 06 50 0500 | 115      | 100      | 50       | 500       | 710    | 25,0   | G 1/2" | 82     | 38      | 30,00       |
| HK HM 06 50 0600 | 115      | 100      | 50       | 600       | 810    | 25,0   | G 1/2" | 82     | 38      | 33,50       |
| HK HM 06 50 0800 | 115      | 100      | 50       | 800       | 1010   | 25,0   | G 1/2" | 82     | 38      | 40,50       |
| HK HM 06 50 1000 | 115      | 100      | 50       | 1000      | 1210   | 25,0   | G 1/2" | 82     | 38      | 47,50       |
| HK HM 06 60 0300 | 115      | 100      | 60       | 300       | 510    | 25,0   | G 1/2" | 82     | 38      | 25,50       |
| HK HM 06 60 0400 | 115      | 100      | 60       | 400       | 610    | 25,0   | G 1/2" | 82     | 38      | 29,50       |
| HK HM 06 60 0500 | 115      | 100      | 60       | 500       | 710    | 25,0   | G 1/2" | 82     | 38      | 33,50       |
| HK HM 06 60 0600 | 115      | 100      | 60       | 600       | 810    | 25,0   | G 1/2" | 82     | 38      | 37,50       |
| HK HM 06 60 0800 | 115      | 100      | 60       | 800       | 1010   | 25,0   | G 1/2" | 82     | 38      | 46,00       |
| HK HM 06 60 1000 | 115      | 100      | 60       | 1000      | 1210   | 25,0   | G 1/2" | 82     | 38      | 54,50       |

Ø A = średnica tłoka – Ø S = średnica tłoczyska