

Selection

SELECTION CRITERIA

To choose the right hoists the following criteria should be taken account:

1. What will be the maximum loading capacity?
2. What will be the maximum lifting height?
3. What hoisting speed is to be employed?
4. Will an auxiliary reduced lifting speed be required?
5. What will the operational conditions be?
6. What will the travelling speed be, if required?
7. How do you need to operate the hoists?

The type of the hoists is to be defined in accordance with the load spectrum, the average operating time per day in hours, the loading capacity and the reeving.

SELECTION EXAMPLE

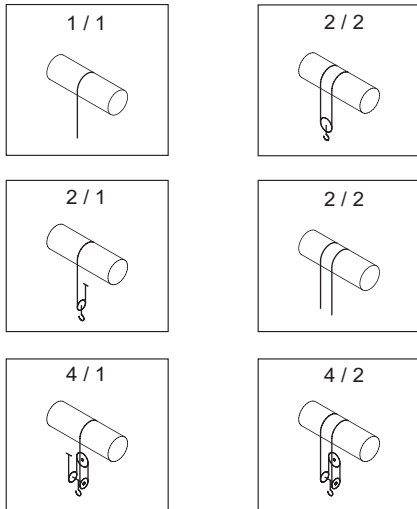
Loading capacity **- 4000 kg**
 Average lifting path of the hook (H) **- 5 m**
 Hoisting speed (V) **- 4 m/min**
 Reeving **- 4/1**
 Load spectrum **- "medium"**
 Cycles per hour (N) **- 15**
 Average operating time per day (T) **- 6 hours**

The average operating time per day of the hoist is to be calculated in the in the following manner:

$$T_m = \frac{2 \times H \times N \times T}{60 \times V} = \frac{2 \times 5 \times 15 \times 6}{60 \times 4} = 3.75 \text{ hours}$$

For the "medium" load spectrum and average operating time per day of 3.75 hours the group "2m" is shown in table "LOAD SPECTRUM-CLASS OF OPERATING TIME".

For loading capacity of 4000 kg and 4/1 reeving the type of the hoist "MHM 4-10" or "MH 6-10" is shown in table 1 - "TYPE SELECTION".



Load Spectrum (Duty operation mode) DEFINITION		Class of Operating Time average operating time per day Tm in hours			
LIGHT	Mechanisms, usually subject to very small loads and in exceptional cases only to maximum loads		2 - 4	4 - 8	8 - 16
MEDIUM	Mechanisms, usually subject to small loads but rather often to maximum loads		1 - 2	2 - 4	4 - 8
HEAVY	Mechanisms, usually subject to medium loads but frequently maximum loads		0.5 - 1	1 - 2	2 - 4
VERY HEAVY	Mechanisms, usually subject to maximum or almost maximum loads		0.25 - 0.5	0.5 - 1	1 - 2
GROUP - DIN 15 020 / FEM 9.511			1 Am	2 m	3 m
GROUP - ISO 4301			M4	M5	M6

Type Selection

CAPACITY, kg			SERIES	SIZE		
REEVING						
1 / 1 2 / 2	2 / 1 4 / 2	4 / 1				
400	800	1600	MH 3 MHM 4 MHM 5	-	-	MH 3-04 MHM 4-04 MHM 5-04
500	1000	2000		-	MH 3-05 MHM 4-05 MHM 5-05	-
800	1600	3200	MH 3 MHM 4 MH 6	MH 3-08	-	MHM 4-08 MH 6-08
1000	2000	4000		-	MHM 4-10 MH 6-10	-
1250	2500	5000	MHM 5	-	-	MHM 5-12 MH 6-12
1600	3200	6300	MH 6	-	MHM 5-16 MH 6-16	-
2000	4000	8000	MH 6 MH 7	-	-	MH 6-20 MH 7-20
2500	5000	10000		-	MH 6-25 MH 7-25	-
3200	6300	12500		-	MH 7-32	-
4000	8000	16000	MH 7	MH 7-40	-	-
5000	10000	20000		-	MH 7-50	-
6300	12500	25000		MH 7-63	-	-