

Technical sheet No 69GM/KAR

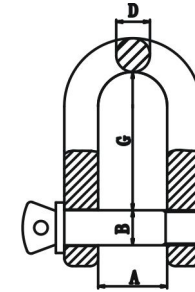
1. Supplier name: **GÓRALMET Sp. z o.o.**

Supplier address: **ul. Krakowska 68, 32-860 Czchów, tel/fax 014 6635260**

2. Product name: **GM-SP screw type pin dee shackle, grade 6**

3. Description and use: Forged steel dee shackle with screwed pin with eye and collar - type W, for lifting objects, loads and cargo's, for wire rope slings made in accordance with EN 13414-1, and for textile slings made in accordance with EN 1492-1, EN 1492-2, within technical parameters given in point 5 and the Directive 2006/42/EC. The using for textile slings is allowed under condition of selecting shackle with WLL at least 20% higher than the WLL of the sling.

4. GM-SP shackles has construction and WLL's conform with EN 13889+A1 norm, however - because of different steel type and different safety factor - are not fully conform. Working load limits are given for the normal working conditions. Usage in extreme conditions is not allowed without supplier agreement. Storage, installation and usage - according to instruction manual for lifting accessories.



5. Technical parameters:

No	Size (WLL) [t]	Nominal dimensions [mm]						Weight [kg/pc]	WLL Working load [t]	MPF Proof force [kN]	BF Breaking force [min. kN]	Material	Coatings
		A	B	D	G								
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0,5	12	7,9	7,2	23			0,046	0,5	9,8	29,4	35CrMo	Body - HDG Pin - EG + powder coating RAL 9005
2	0,75	12,5	9,3	7,8	24,5			0,072	0,75	14,7	44,1		
3	1	16,5	11	10	32			0,137	1	19,6	58,8		
4	1,5	18	12,5	10,8	36,5			0,182	1,5	29,4	88,3		
5	2	20	15,7	12,7	40,5			0,291	2	39,2	117,7		
6	3,25	26	18,5	16	51			0,557	3,25	63,7	191,2		
7	4,75	32,5	21,5	20	61			0,916	4,75	93,2	279,5		
8	6,5	37	24,5	23,5	71,5			1,452	6,5	127,5	382,5		
9	8,5	43	27,5	25	80			2,068	8,5	166,7	500,1		
10	9,5	44,5	32	29	88			2,938	9,5	186,3	559,0		
11	12	50	35	32	100			4,075	12	235,4	706,1		
12	13,5	57,5	37,5	36	114			5,380	13,5	264,8	794,3		
13	17	60,5	41,5	39,5	123			7,096	17	333,4	1000,3		
14	25	73	49,5	46,5	144			11,550	25	490,3	1471,0		

6. Additional informations:

- Safety factor - 6
- $MPF=2,0 \times g \times WLL$, $BF =6,0 \times g \times WLL$ where g - acceleration of gravity in m/s^2 (i.e. 9,80665).
- Manufacturer and product identification code: GM-SP
- Traceability code: a four-digit number by formula - YYMM (YY = year of production, MM = month of production)
- Markings: manufacturer's symbol – GORALMET or GMG; ; manufacturer and product identification code; traceability code; WLL...T
- Marking of pins in size 1T and larger: GM or GMG
- Additional informations – label: ; product name; size (WLL...T); quantity; order No; manufacturer's data and website address.