

Technical sheet No 72GM/KAR

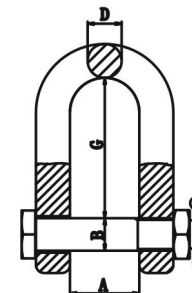
1. Supplier name: **GÓRALMET Sp. z o.o.**

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

2. Product name: **GM-SPZ bolt type pin dee shackle, grade 6**

3. Description and use: Forged steel dee shackle with bolt type pin with hexagon head, hexagon nut and split cotter pin - type X, 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-SPZ 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	20	15,7	12,7	40,5			0,325	2	39,2	117,7	35CrMo	Body - HDG Pin and nut - EG + powder coating RAL 9005
2	3,25	26	18,5	16	51			0,629	3,25	63,7	191,2		
3	4,75	32,5	21,5	20	61			0,916	4,75	93,2	279,5		
4	6,5	37	24,5	23,5	71,5			1,452	6,5	127,5	382,5		
5	8,5	43	27,5	25	80			2,068	8,5	166,7	500,1		
6	9,5	44,5	32	29	88			2,938	9,5	186,3	559,0		
7	12	50	35	32	100			4,075	12	235,4	706,1		
8	13,5	57,5	37,5	36	114			5,380	13,5	264,8	794,3		
9	17	60,5	41,5	39,5	123			7,096	17	333,4	1000,3		
10	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-SPZ
- 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.