



NIPPON KORNMEYER
CARBON GROUP

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CONTINUOUS CASTING OF METALS

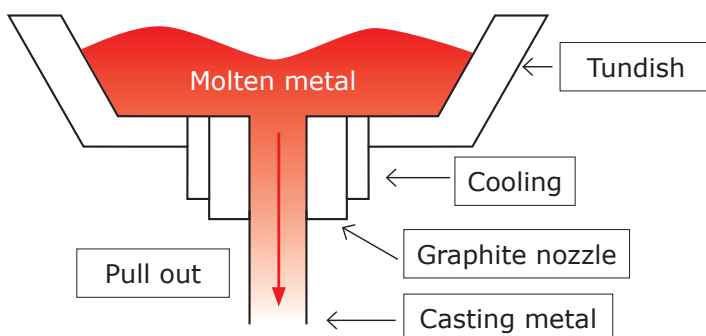
Nippon Kornmeyer Carbon Group (**NKCG**) produces Isostatic graphite (CIP) dies for continuous casting of cast iron, copper alloy and precious metals.

Based on the casting process and metal type, we offer several CIP grades in order to respect the expected quality level.

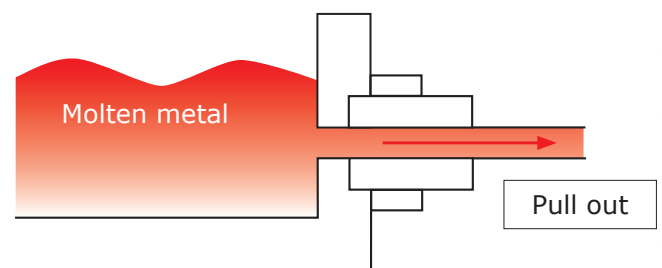
From the raw material to the finished casting die, **NKCG** proposes several services:

- Polished surface of the casting die
- Coatings such as PyC for lifetime extension and reduction of open porosity
- Re-machining services of used dies
- Improve individual design or assembly of segmented dies
- Adapt raw material parameters of the CIP graphite

1. VERTICAL TYPE



2. LATERAL TYPE



Nippon Techno-Carbon Co.,Ltd.

GENERAL CHARACTERISTICS OF GRAPHITE SPECIALTIES

Grade	Bulky Density	Bending Strength (Mpa)	Specific Resistance ($\mu\Omega\text{m}$)	Coefficient of Thermal Expansion ($\times 10^{-6}/\text{K}$)	Thermal Conductivity W/m·k	Shore Hardness
IGS-603	1.80	44	12.5	4.6	116	57
IGS-644	1.83	54	15.0	5.0	105	66
IGS-743	1.80	54	12.5	4.8	128	60
IGS-744	1.86	59	11.0	4.8	140	64
IGS-844	1.85	64	17.0	5.4	80	78
IGS-853	1.80	55	22.0	4.3	40	74
IGS-963	1.80	54	12.5	4.2	128	56

RECOMMENDED GRAPHITE GRADES FOR CONTINUOUS CASTING

Metal	Important properties	Thermal conductivity (W/m K)			
		40	70	100	130
Pure copper	<ul style="list-style-type: none"> • Thermal conductivity • Wet resistance • Coefficient of thermal expansion (CTE) • Heat resistance 		IGS-844	IGS-603	
Brass			IGS-644		IGS-744
Tin bronze					IGS-743
Cast iron		IGS-853	IGS-844		
Phosphor bronze					IGS-744
Nickel silver		IGS-853	IGS-844		
Stainless steel					IGS-963

IN BUSINESS SINCE 1968

NKCG is a company jointly operated by the shareholders of Kornmeyer Carbon-Group (Germany) and Nippon Carbon Co. Ltd. (Japan), a Tokyo stock exchange listed carbon manufacturer.

NKCG specializes in design, manufacturing, coating, purification and technical support of carbon- and ceramic-based materials for our customers in Europe, Middle-East, Africa and Americas. Key industries served cover the segments: Metal casting, heat treatment, automotive, solar, semiconductor and aerospace.

