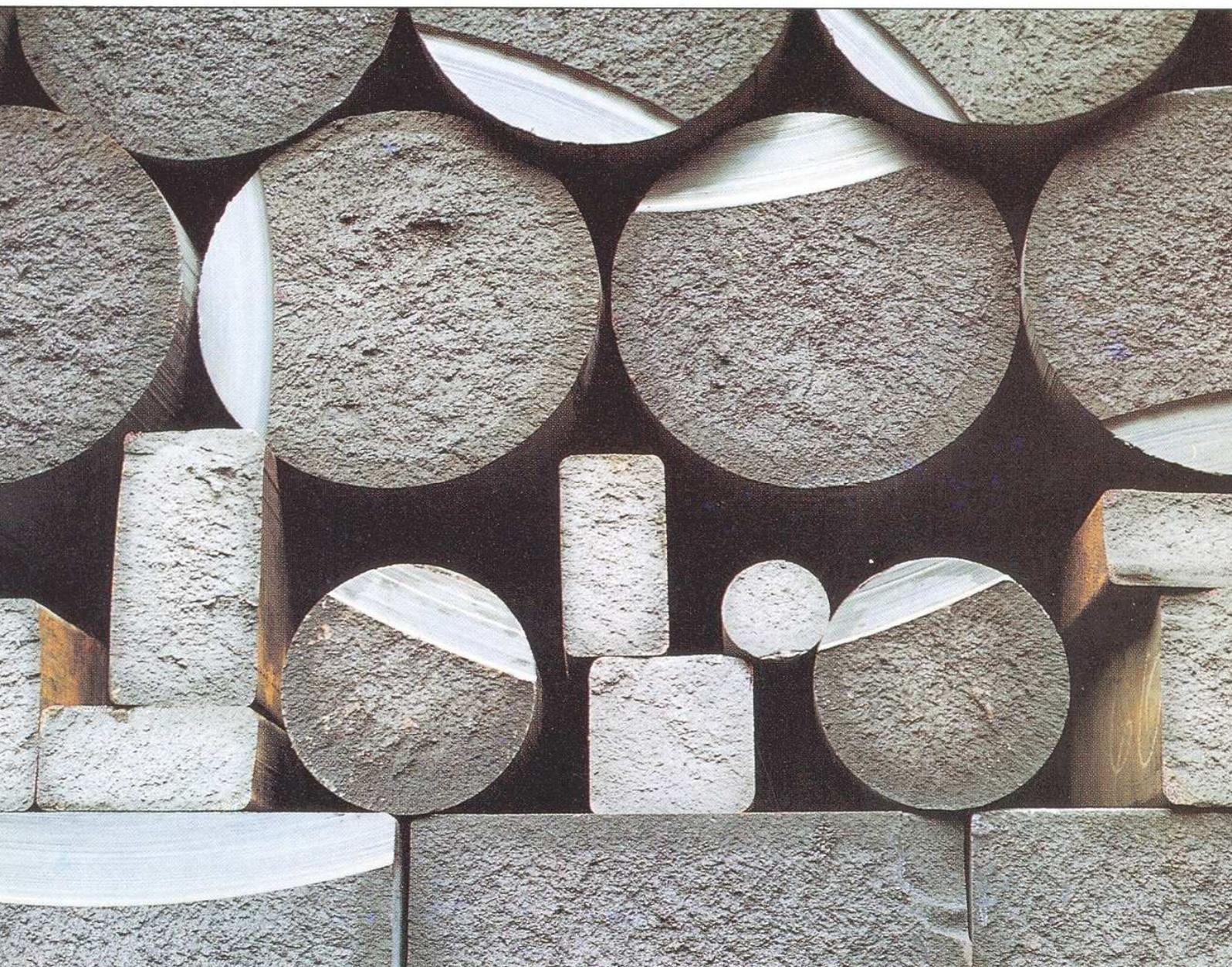


Grey Iron



For more than 45 years, our company has been committed to providing the global distributors community with innovative, high quality, cost effective grey cast iron products. From our humble beginnings in 1968, the Company has grown to become one of the largest professional grey iron products company in the world. With operations in many countries, the Company distributes its TVH® TV25 products in over 72 countries under some of the most well established brand names in the industry. Worldwide, stockist and distribution professionals now depend upon TRAIID for quality and service.

TRAID VILLARROYA manufactures a complete range of grey cast iron TVH®-TV25 alloy rods, squares and shapes for all types of industries and customers. Our materials operate in many varied and often challenging applications. An unwavering commitment has always been maintained to the highest standards of the quality, as well as for the protection of the environment in the communities in which we live and work. The long-term business success of our products depends on our ability to ensure that our quality remains a top priority for the management and each employee. This idea is our commitment to making sustainable health a reality through innovative technology and services focused on addressing three critical needs: lowering costs, helping our customers and improving quality. All our materials are inspected as well as analyzed for determining the perfect composition according to international norms. Here we present you our standard delivery program, besides the stock list shown, other sizes and formats are also available upon request. All our materials are tested to certify the hardness, tensile and ultimate tensile strength. Our quality certification DIN ISO 9001:2008 regularly audited covers all our production from the very first moment to your final stock. The evolution of TRAIID VILLARROYA continues ... After all, we're more than a manufacturer. More than a distributor. We're an essential resource. Our customers' challenges keep changing, and we're helping them adapt every step of the way.





TVH® TV25 (GG25) MANUFACTURING PROGRAM

SOLID RODS

<i>Ø Size mm.</i>	<i>Approx. weight Kg/m.</i>
40	9.40
45	11.90
50	14.70
55	17.70
60	21.10
65	24.80
70	28.70
75	33.00
80	37.50
85	42.40
90	47.50
95	52.90
100	58.70
105	64.70
110	71.00
115	77.60
120	84.50
125	91.70
130	99.20
140	115.00
150	132.00
160	150.20
170	169.60
180	190.10
190	211.80
200	234.70
210	258.70
220	284.00
230	310.40
240	337.90
250	366.70
260	396.60
270	427.70
280	459.80
290	493.20
300	527.80
310	563.60
320	600.60
330	638.70
340	678.00
350	718.50
360	760.10
370	802.90
380	846.90
390	892.10
400	938.40
410	986.00
420	1034.70
430	1084.40
440	1135.60



TVH® TV25 (GG25)

Density 7,15 g/cm³

Perlitic Cast iron with lamellar graphite

Specifications:

TRAID	TVH®	TV25
D	DIN 1691	GG-25
F	NF	Ft 25 D
GB	BS	Grade 220 / 260
USA	ASTM	35 B/ 40 B

Nominal composition:

C	2,9 – 3,1 %
Si	1,8 – 2,1 %
Mn	0,8 – 1,1 %
Fe	Rest

NOMINAL PROPERTIES	UNIT	CONTINUOUS CAST
Tensile strength R_m	MPa	250 – 350
Yield point $R_{p0,1}$	MPa	165 – 228
Breaking elongation A	%	0,8 – 0,3
Compressive strength $\delta b\beta$	MPa	840
Bending strength $\delta b\beta$	MPa	340
Shear strength $\delta a\beta$	MPa	290
Torsional strength $\tau\beta$	MPa	290
Modulus of elasticity E	kN/mm ²	103 – 118
Poisson's ratio ν		0,26
Reversed bending strength $\delta b\beta$	MPa	120
Alternating tensile-comp. strength	MPa	60
Fracture toughness K _{ic}	N/mm ^{3/2}	480
Thermal conductivity	W/(K.m)	47

MAIN CHARACTERISTICS

Machinability:	very good.
Wear resistance:	very good.
Inductive or flame-hardening capacity:	good.
Nitride hardening capacity:	good.
Quenching:	very good.
Weldability:	partially weldable with special electrodes.

INDUSTRY APPLICATIONS

Compressors.
Cylinders.
Pistons.
Pumps.



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