



ABRASIVE TOOLS FOR THE RAIL INDUSTRY

In the railway construction and maintenance, a wide range of abrasive tools is commonly used. The tool selection depends on the type of grinding operation.

Typical operations are: rail head grinding, rail cutting-off, crossing grinding and welding joint grinding. Main task of grinding operations is to restore key rail surfaces and remove rail defects that appear during everyday use. Correctly carried out grinding operations with application of optimally selected characteristics of abrasive tools increase safety and travel comfort.

| GRINDING OPERATIONS WITH ANDRE ABRASIVE TOOLS

RAIL HEAD GRINDING

- Rail head grinding with abrasive segments
- Rail head face grinding
- Rail head grinding with profile grinding wheel

RAIL TRACK CUTTING-OFF

- Cutting-off with manual petrol cutters

SWITCH AND CROSSING GRINDING

- Optimization and preventing defects

WELDING JOINT GRINDING

- Grinding the weld



RAIL HEAD GRINDING

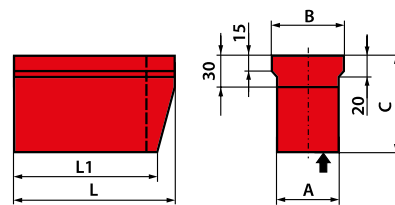
The main purpose of this grinding process is to restore the rail head profile and remove rail defects which appear due to progressive wear. The operation is performed using lightweight track mounted grinding machines or heavy duty machines.

RAIL HEAD GRINDING WITH ABRASIVE SEGMENTS

During the rail head grinding process, abrasive segments are used to reprofile the desired shape of the rail head and remove the resulting defects during operation.

The abrasive tools proposed for the above operations were manufactured based on knowledge, many years of experience and ANDRE's cooperation with partners from the railway industry.

TYPE 3120



3120 - B/A × C × L/L1

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics
3120	66/56 × 90 × 155/140	99A36T5B520

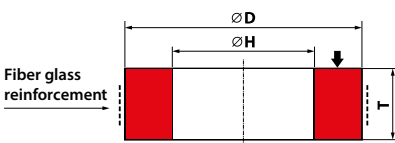
[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

RAIL HEAD FACE GRINDING

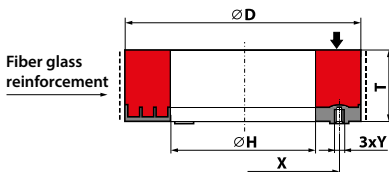
Reprofiling of the desired head shape and removal of defects created during exploitation is carried out with the use of lightweight track mounted grinding machines or heavy duty machines

ANDRE grinding wheels help to achieve the required surface quality with high efficiency.

TYPE 35X | TYPE 36X



35X - D × T × H - ... - V - dwg. no



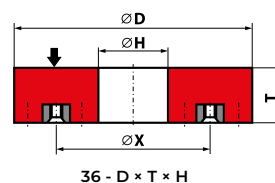
36X - D × T × H - ... - V - dwg. no

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
35X	250 × 85 × 150	10AZ16V5B823	50
36X	260 × 85 × 153	92A7AZ16V5B823	50

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

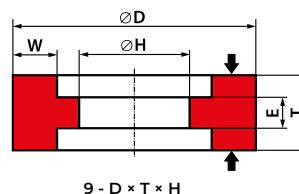
| TYPE 36



Examples of implemented abrasive tools in industry [*]				
Type	Dimensions [mm]	Technical characteristics	Threaded inserts	Speed [m/s]
36	250 × 85 × 150	95A16PB97	4×M8	25
36	150 × 75 × 56	95A16P6B97	4×M8	50

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

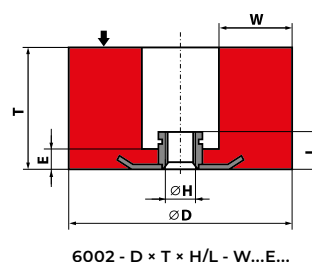
| TYPE 9



Examples of implemented abrasive tools in industry [*]			
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
9	254 × 40 × 76,2 - W44E20	95A14Q5B97	50

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

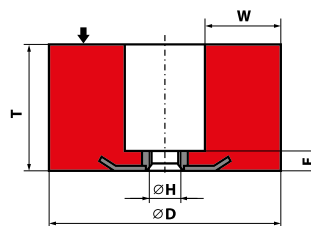
| TYPE 6002



Examples of implemented abrasive tools in industry [*]			
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
6002	125 × 65 × M20/23 - W37E13	95A16Q B	35
6002	150 × 65 × M20/28 - W35E21	95A16Q B97	40

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

TYPE 6003



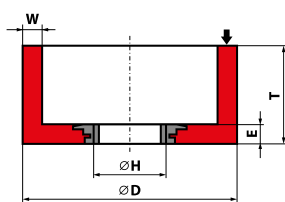
6003 - D × T × H - W...E...

Examples of implemented abrasive tools in industry [*]

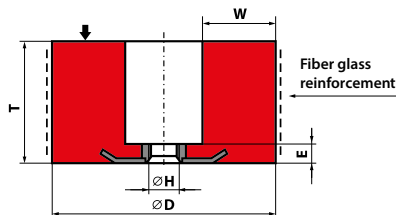
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
6003	100 × 110 × M20L - W20E25	95A20Q B	40
6003	125 × 65 × M20 - W32E13	95A14Q B	40
6003	150 × 55 × M20 - W42,5E18	95A16NB	40

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

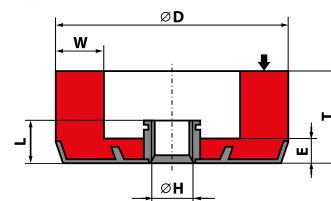
TYPE 6001 | TYPE 6003X | TYPE 6005 | TYPE 6004



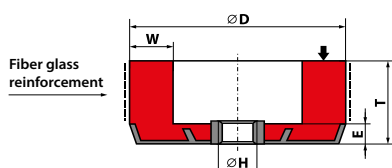
6001 - D × T × H - W...E...



6003X - D × T × H - W...E...



6005 - D × T × H/L - W...E...



6004 - D × T × H - W...E...

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
6001	80 × 72 × 5/8"-W20E20	95A16P5B	40
6003X	100 × 110 × M20L-W25E24	95A16Q5B559	40
6005	120 × 110 × M20L/28-W25E24	95A16P5B559	40
6004	152 × 80 × M20 - W50E18	10ZRA16T7B	63

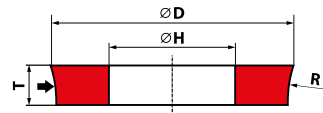
[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

● RAIL HEAD GRINDING WITH PROFILE GRINDING WHEEL

In this grinding process a grinding wheel type 1 with a special profile on its periphery is used on heavy duty railway grinding machine.

ANDRE profile grinding wheels dedicated to this operation have been designed to minimize the impact of temperature on grinding process. Technical characteristics of the wheels we offer ensure required surface quality and long life of the grinding wheel.

| TYPE 1X



1X - D × T × H - ... - dwg. no

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
1X	600 × 65 × 305,2	53AY462H12VTE10PP	35
1X	600 × 65 × 305,2	53AY462I12VTE10PP	35
1X	600 × 50 × 305,2	53AY462I12VTE10PP	35
1X	800 × 65 × 305,2	53AY462I12VTE10PP	35

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

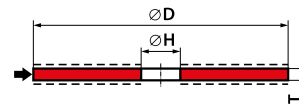
RAIL TRACK CUTTING-OFF

● CUTTING-OFF WITH MANUAL PETROL CUTTERS

The rail track cutting operation is carried out using manual petrol cutters equipped with special mountings. A very important factors affecting the progress of the work during cutting is the time of operation and wheel efficiency.

While designing cutting-off wheels ANDRE has made every effort to ensure that the cutting operation is fast, safe and the tool life is long enough.

| TYPE 41



41 - D × T × H

Examples of implemented abrasive tools in industry [*]

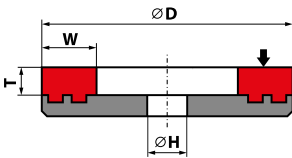
Type	Dimensions [mm]	Technical characteristics	Version	Speed [m/s]
41	300 × 3,5 × 32	95A 24R BF	RAIL	100
41	350 × 3,5 × 32	95A 24R BF	RAIL	100
41	400 × 4,0 × 32	95A 24R BF	RAIL	100

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

SWITCH AND CROSSING GRINDING

• OPTIMIZATION AND PREVENTING DEFECTS

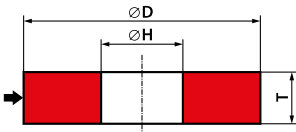
| TYPE 2X | TYPE 1 | TYPE 5



2X - D × T - W - ... - dwg. no

Examples of implemented abrasive tools in industry [*]			
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
2X	280 × 18 - W36	10ZRA16T5B	50

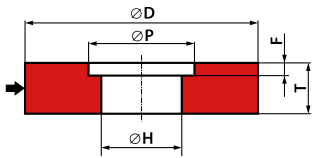
[*] For the full range of dimensions and available technical characteristics ask the Sales Department.



1 - D × T × H

Examples of implemented abrasive tools in industry [*]			
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
1	200 × 25 × 20	96A16L6B97F3	63

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.



5 - D × T × H - P...F...

Examples of implemented abrasive tools in industry [*]			
Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
5	250 × 32 × 25,4 - P150F14	95A16P6B97	50

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.

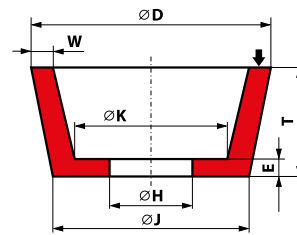
WELDING JOINT GRINDING

GRINDING THE WELD

In this grinding operation welding joints are machined to profile the weld to rail shape. For these works manual grinders are often used.

ANDRE is consistently focusing on the quality of the products, taking into account primarily the safety of grinding wheel users and high efficiency of offered tools.

| TYPE 11 | TYPE 27

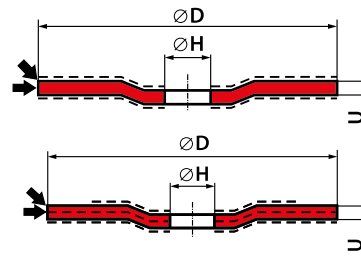


11 - D/J × T × H - W...E...K...

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics	Speed [m/s]
11	110/90 × 55 × 22,23 - W20E14K48	95A16QB97	50

[*] For the full range of dimensions and available technical characteristics ask the Sales Department.



27 - D × U × H

Examples of implemented abrasive tools in industry [*]

Type	Dimensions [mm]	Technical characteristics	Version	Speed [m/s]
27	125 × 8,0 × 22,23	95A30QBF	STANDARD	80
27	230 × 8,0 × 22,23	95A24QBF	STANDARD	80

Several product lines and versions available: ECO LINE, PRO LINE (version: STANDARD, EXTRA, METAL/INOX) and MASTER LINE

PERFECT RAILS... REMOVAL OF DEFECTS AND DEFORMATIONS



ANDRE ABRASIVE ARTICLES
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